

Declaration of James F. Hasson – Volume 2

# EXHIBIT F

# Peer Influence on Gender Identity Development in Adolescence

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During adolescence, gender identity (GI) develops through a dialectic process of personal reflection and with input from the social environment. Peers play an important role in the socialization of gendered behavior, but no studies to-date have assessed peer influences on GI. Thus, the goal of the present study was to examine peer influences on four aspects of adolescents' GI in racially and ethnically diverse 7th- and 8th-grade students ( $N = 670$ ; 49.5% boys,  $M$  age = 12.64) using a longitudinal social network modeling approach. We hypothesized stronger peer influence effects on between-gender dimensions of GI (intergroup bias and felt pressure for gender conformity) than on within-gender dimensions of GI (typicality and contentedness). Consistent with expectations, we found significant peer influence on between-gender components of GI—*intergroup bias* among 7th and 8th graders as well as *felt pressure for gender conformity* among 8th graders. In contrast, within-gender components of GI showed no evidence of peer influence. Importantly, these peer socialization effects were evident even when controlling for tendencies to select friends who were similar on gender, *gender typicality*, and *contentedness* (8th graders only). Employing longitudinal social network analyses provides insights into and clarity about the roles of peers in gender development.

**Keywords:** gender identity, peer influence, social network analysis, stochastic actor-based modeling, adolescence

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Although gender development has been a focus of adolescent research for many years, much of this research has been concentrated on the development of gender stereotypes or attitudes (see Ruble, Martin, & Berenbaum, 2006, for a review) rather than changes in gender-related self-concepts. However, in 2001, with the introduction of a multidimensional view and measure of gender identity (GI) by Egan and Perry (2001), research on GI flourished. This model posits that young children develop a single component of GI—membership knowledge—and by middle childhood, they develop four additional self-concepts, all of which comprise the construct of GI: gender typicality, gender contentedness, intergroup bias, and felt pressure to conform to gender norms. Once reaching adolescence, normative changes occur in these four dimensions of GI, and individual differences in these aspects of GI

are related to social and psychological adjustment outcomes (e.g., Carver, Yunger, & Perry, 2003; Smith & Leaper, 2006).

As adolescents consolidate their identities, questions about GI become relevant to their emerging sense of self and peer experiences may influence how youth think about and experience aspects of GI. Individual differences in GI self-concepts emerge through an increased capacity for making social comparisons (Ruble & Dweck, 1995) and due to pressure from parents or peers to conform to gender norms (Yunger, Carver, & Perry, 2004). Although some attention has been paid to the role of peers in gender typing (Jewell & Brown, 2014; Smith & Leaper, 2006) and sexism (Leaper & Brown, 2008), and theoretical arguments have been made about the importance of peers in influencing gender development (Leaper & Friedman, 2007; Maccoby, 1998; Harris, 1995), to our knowledge, no studies have empirically tested peer influence on dimensions of GI. This gap is surprising given a large number of studies documenting the potent role of peer influence on adolescent socioemotional and behavioral development (for reviews, see Brechwald & Prinstein, 2011; Dishion & Tipsord, 2011; Veenstra, Dijkstra, Steglich, & Van Zalk, 2013).

We address this gap by examining peer influence on GI in adolescent friendship networks. Because GI is, by definition, an evolving aspect of the self, its development needs to be considered using longitudinal designs (Egan & Perry, 2001). When examining the role that friendship networks play in contributing to changes in GI self-concepts, it is particularly important to control for how adolescents initially select their friends (to prevent inflated estimates of peer influence; Snijders, van den Bundt, & Steglich, 2010). In other words, do friends become similar to one another on dimensions of GI over the course of their friendships (influence), or does this similarity between adolescents and friends result from

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adolescents preferring to befriend others with similar levels of GI self-concepts (selection)? Answering the former question requires also considering the latter, and involves employing longitudinal designs to study the changes in GI dimensions and friendship networks. Because we are interested in examining contributions of a broader network of social relationships (i.e., multiple friends of the focal individual, friends of friends, etc.; for a review, see Veenstra et al., 2013), we do not restrict our examination to best friendships, which are commonly a focus of developmental research (for reviews, see Gifford-Smith & Brownell, 2003; Bagwell & Schmidt, 2011). Accordingly, we use longitudinal social network analysis (SNA) methods that have been developed to disentangle peer influence from confounding processes of network selection (Snijders et al., 2010). Thus, the main objective of this study is to examine the role of peer influence on changes in dimensions of adolescent GI. We also describe the role of gender and GI for network selection (who adolescents select as friends) and explore gender differences in the magnitude of influence on GI self-concepts.

### Development of Multiple Dimensions of GI

The Egan and Perry (2001) model of GI consists of five components, including: *self-identification* (typically as ‘female’ or ‘male,’ though it is plausible for a young person to identify outside of the gender binary, and less is known about how such identification might alter GI development), *gender typicality* (the degree to which one feels as a typical member of one’s gender group), *gender contentedness* (the degree to which one is happy with one’s gender group), *felt pressure for gender conformity* (the degree to which one feels pressure from parents, peers, and self for conformity to gender stereotypes), and *intergroup bias* (the extent to which one believes one’s own gender is superior to the other; Carver et al., 2003). After achieving self-identification early in life, the four remaining dimensions involve adolescents making global, summary judgments about themselves and others, which are constructed through a dialectical process involving personal reflection and input from the social environment (Yunger et al., 2004). Research has shown that GI dimensions are relatively stable but undergo changes (Priess, Lindberg, & Hyde, 2009; Yunger et al., 2004). It is also useful to distinguish *between-gender* and *within-gender* facets of GI (Pauletti, Cooper, & Perry, 2014), such that intergroup bias and felt pressure focus more on how an individual relates to the *other gender*, typicality and contentedness concern how an individual relates to his or her *own gender*. These different facets find some support in the correlations among dimensions. For both genders, typicality and contentedness are positively related, but only for girls are intergroup bias and felt pressure related (also related to contentedness; Egan & Perry, 2001; Carver et al., 2003).

Considering within-gender GI self-concepts, *gender typicality* is the dimension of GI that has received the largest share of empirical attention. To appraise oneself as being gender typical involves considering both the specific and more abstract features of one’s gender to derive a global view of oneself (e.g., “Overall, I am/am not a good fit for my gender category”; Spence, 1985; Egan & Perry, 2001). Younger children may appraise their typicality based on their activities and playmate preferences, whereas older children may expand their perspectives and take into account person-

ality traits (Egan & Perry, 2001). Additionally, as children grow older, peers take on even greater importance in their social lives (Harris, 1995), and peer group comparisons may begin to contribute to feelings of typicality. Another, albeit less studied, aspect of GI is *gender contentedness*, which describes the degree to which one feels positive toward one’s gender group. Gender contentedness is more likely to occur when children are happy with their gender (Carver, Yunger, & Perry, 2003; Egan & Perry, 2001). These within-gender aspects of GI appear to be positively related with psychological adjustment, social skills, and peer acceptance (Carver et al., 2003; Smith & Leaper, 2006; Yunger et al., 2004).

Regarding between-gender dimensions of GI, *felt pressure for gender conformity* captures the extent to which children feel pressure from parents, peers or themselves to conform to gender norms (Egan & Perry, 2001). For instance, this dimension addresses pressures not to behave in cross-gender ways (e.g., for a girl, “Other kids, who are girls like me, would get upset if someone who is a girl acts like a boy”). Finally, *intergroup bias* describes the extent to which youth tend to associate more positive and fewer negative traits to their own gender group compared with the other gender (Powlishta, 1995; Yee & Brown, 1992; Zosuls, Miller, Ruble, Martin, & Fabes, 2011). These between-gender GI dimensions operate through magnification of gender differences and expanded stereotype use (Powlishta, 1995), and can translate into challenges with peer relations and can potentially result poor psychological adjustment (Carver et al., 2003; Smith & Leaper, 2006; Yunger et al., 2004).

### The Role of Peer Context and Peer Influence for Development of GI Dimensions

Although peers are theorized to have a major impact on children’s gender development (Bussey & Bandura, 1999; Maccoby, 1998), few studies have tested their influence, and the few that have, focused on gendered behaviors such as interests and activities among preschool children (see Martin & Fabes, 2001; Martin et al., 2013). No research has examined peer influence on GI development in adolescents. However, existing research has illustrated links between GI and peer relationships. For instance, studies have revealed how aspects of GI are associated with various dimensions of peer relations including peer popularity, acceptance, teasing, and victimization. Specifically, youth who describe themselves as being gender typical and being content with their gender tend to be more accepted by, and popular with their peers, whereas adolescents who score low in gender typicality are more likely to be teased by peers (Egan & Perry, 2001; Jewell & Brown, 2014; Young & Sweeting, 2004). Adolescents who report feeling a strong pressure to conform to gender norms tend to become less accepted by their peers over time (Yunger et al., 2004). Felt pressure for gender conformity has been found to mediate the relation between gender atypicality and peer victimization, underscoring the importance of peer dynamics surrounding GI development for adolescent psychosocial adjustment (Drury, Bukowski, Velásquez, & Stella-Lopez, 2013). Finally, little is known about peer relations correlates or antecedents of gender intergroup bias. However, evidence regarding gender-related biases (e.g., homophobic biases; Poteat, 2007) has documented peer contributions in influencing such attitudes.



The notion that the peer context may shape emerging self-concepts of GI is consistent with a large body of evidence documenting that the peer group is a potent source of influence for adolescents (Brechwald & Prinstein, 2011; Dishion & Tipsord, 2011). Adolescents spend increasingly higher amount of time in the company of their peers (Larson & Richards, 1991), whose motivational and affective salience is heightened (Parker, Rubin, Erath, Wojslawowicz, & Buskirk, 2006), making peer experiences relevant for shaping GI. Youth may be susceptible to peer influence due to an increased capacity for making social comparisons (Ruble & Dweck, 1995), or due to increased peer pressure to conform to social norms (Brechwald & Prinstein, 2011; Yunger, Carver, & Perry, 2004). Specifically, social comparisons to own-gender peers allow youth opportunities to weigh how they compare to others in their gender group and change their behaviors to become more similar to perceived peer group norms. Becoming more similar to peer group norms may foster a positive self-concept (Gibbons, Gerrard, & Lane, 2003) and increase a sense of belongingness (Walton, Cohen, Cwir, & Spencer, 2012). Overall, emerging mastery of social comparison (Ruble & Dweck, 1995) combined with an increasingly rich peer environment, may lead to changes in adolescent's social and personal identities, including GI.

Another source of peer influence on GI involves peer rewards and punishments for gender-related behaviors. A number of studies have illustrated that negative sanctions (or less acceptance) for certain behaviors may be directed toward adolescents who are gender atypical or who behave in atypical ways (Horn, 2008; Jewell & Brown, 2014; Leaper & Brown, 2008; Lee & Troop-Gordon, 2011). It is likely that adolescents are sensitive to messages from peers about gender typicality expressed through gender teasing or bullying (Drury, Bukowski, Velásquez, & Stella-Lopez, 2013). Peers may also play a role in contributing to youth's sense of felt pressure for gender conformity through peers' acceptance or nonacceptance of youth's behaviors, appearance, or interests. Indeed, adolescents, who felt strong pressure to conform to gender norms, became less accepted by their peers (Yunger et al., 2004). Presumably, peers may also influence each other to develop gender group-related biases because these comments are likely expressed overtly and can be easily overheard or observed. Although the evidence is limited, these studies suggest that peers express the norms of their group and are involved in the reinforcement of similar views within their group.

### Contributions From SNA to the Study of Peer Influence on GI Development

Investigating peer influence on GI dimensions without controlling for how adolescents come to have a particular network of friends (i.e., network selection) risks overestimating the importance of peer influence in GI development. Fortunately, *stochastic actor-based modeling* (SABM) methods have been developed to estimate peer socialization effects while controlling for alternative processes implicated in peer network selection (Snijders et al., 2010). Consider the following processes linking gender and GI self-concepts to network selection. First, developmental and social networks literatures show that *homophily*, or preference for similar others, contributes to friendship formation such that friend choices are driven by preferences for friends who are of the same gender,

ethnic, socioeconomic background, and other characteristics (Aboud & Mendelson, 1996; Mehta & Strough, 2009; McPherson, Smith-Lovin, & Cook, 2001). Second, given that preference for similarity on gender-typed behaviors has been shown in children's peer networks (Martin et al., 2013), preferences to affiliate with friends who have similar levels of GI self-concepts may also contribute to friendship network selection. The final contribution to network selection comes from structural processes describing how connections between individuals depend on the nature of their ties with other members of a group (e.g., triad closure, or a tendency to form ties with friends of friends; Snijders et al., 2010). Triad closure, as well as other structural processes (i.e., reciprocity, popularity), will further amplify network selection on individual attributes, such as gender and GI (Wimmer & Lewis, 2010). The consequence of these multiple, intertwined processes generating networks is that if we attempt to study peer influence on GI within a network without statistically controlling for network selection processes, we are likely to obtain inflated estimates of peer socialization effects. For these reasons, SABM methods are gaining popularity in developmental science research focusing on peer socialization of various outcomes (e.g., Veenstra et al., 2013).

### The Present Study

Decades of research underscore the role of peers in gender socialization, but no studies to-date have examined whether youth become more similar to their friends on dimensions of GI. Because GI is an evolving aspect of the self, its development needs to be considered over time; thus, our use of SABM permits estimating changes in GI as a part of the network-behavior co-evolution, which is an important methodological advantage. For each dimension of GI, SABM estimates peer influence on GI while controlling for confounding processes including the effects of youth selecting peers who are similar to themselves on gender and GI dimensions, as well as network structural processes. We examined peer influence on GI by using panel data on GI and friendship networks collected from seventh- and eighth-grade students from an ethnically diverse public middle school. We hypothesized that adolescents would change their GI self-concepts to become similar to their friends, and that these effects would occur even when network selection effects were controlled. We also explored the possibility of peer influence being more pronounced on certain dimensions of GI rather than others, informed by the distinction between *between-gender* and *within-gender* dimensions of GI (Pauletti et al., 2014). We hypothesized stronger peer influence effects on between-gender dimensions of GI (intergroup bias and felt pressure for gender conformity) than on within-gender dimensions of GI (typicality and contentedness). This pattern was expected due to the differences in salience of peer feedback and social norms for the two dimensions. Specifically, we expected stronger socialization effects for between-gender dimensions because this information may be made very salient: youth may engage in discussions about the other gender collective, similar to how they discuss stigmatized racial groups (Kiesner, Maass, Cadinu, & Vallese, 2003), which would contribute to reinforcement and magnification of gender differences and peer socialization of between-gender identity self-concepts. Increased salience of social categories, such as gender could occur in these peer discussions, and it is one factor that has been proposed as contrib-

uting to social stereotyping and prejudice in developmental intergroup theory (Bigler & Liben, 2007). We anticipated weaker socialization effects for within-gender dimensions because these aspects of self-concept appear to be driven largely by private cognitive processes comparing how adolescents view themselves in relation to their own gender, although there may be some contribution by external social forces. Given the largely private nature of gender typicality and contentedness, we expected these aspects of GI to be less susceptible to peer influence than the other two aspects of GI.

A related goal of this study is to explore how peers select their friends (i.e., network selection). Consistent with large literature documenting gender segregation in peer groups (e.g., Maccoby, 1998; Mehta & Strough, 2009), we expected that adolescents would have a tendency to select peers based on being of the same gender. Because past research has documented that children prefer to affiliate with others who have similar levels of gender-typed activities (Martin et al., 2013), it is possible that youth may prefer to form friendships with those who have similar levels of GI dimensions (both between- and within-gender self-concepts). Given that past research has documented that intergroup bias and felt pressure for gender conformity can translate into externalizing problems and peer difficulties (Carver et al., 2003; Smith & Leaper, 2006; Yunger et al., 2004), we anticipated that these between-gender self-concepts would be deleterious for friendship selection dynamics and thus negatively associated with the number of friendship nominations sent out to and received from grade-mates. On the other hand, because the same research has shown that within-gender dimensions have positive effects on peer acceptance and social skills, we expected that gender typicality and contentedness would promote friendship network selection processes and be associated with higher number of friendship nominations sent and received. Past research has documented that relative to girls, boys endorse higher levels of some of the GI dimensions (e.g., felt pressure; Ruble et al., 2006); thus, as a final exploratory goal, we examine whether gender differences exist in network selection and in the magnitude of peer network influence.

## Method

### Participants

Participants of the present study were part of a large study examining longitudinal associations between identity development, psychological adjustment, friendship networks and educational outcomes (Kornienko & Santos, 2014; Santos, Kornienko, & Rivas-Drake, in press; Santos & Updegraff, 2014). This study was conducted at a large Title I public middle school in a southwestern U.S. metropolitan city, where 89.7% students were racially and ethnically diverse, including 62.5% Latina/o students, and 85.5% of students were eligible for a free and reduced-price lunch (see Table 1 for a more detailed description of sociodemographic characteristics of this sample). All students ( $N = 1052$ ) attending sixth, seventh, and eighth grades were invited to participate in the study. Teachers introduced the study to students and parents via an informational letter in either English or Spanish (to accommodate Spanish-speaking parents). In this letter, parents were given the option to opt out of their child's participation in the study as the study used a passive consent procedure since the school served as

Table 1

*Descriptive Statistics on Sociodemographic Characteristics of the Sample*

Characteristic	Grade 7	Grade 8
Boy	46%	53%
Age, $M$ ( $SD$ )	12.12 (0.53)	13.15 (0.52)
Ethnic/racial background		
European American	12%	11%
African American	16%	19%
Native American	8%	7%
Latina/o	57%	56%
Other race/ethnicity	7%	8%
Free/reduced lunch	79.9%	79.2%
Generational status of parents		
Both U.S. born	47.2%	43.5%
One parent foreign born	11.7%	12.8%
Both parents foreign born	40.5%	42.2%
Languages spoken at home		
English	37.8%	37.6%
Spanish	3.0%	1.6%
English and Spanish	54.8%	53.7%
Other language	4.3%	6.7%
Family structure		
Two-parent family	63.6%	57.2%
Single-parent family	29.8%	32.6%

*Note.* Each categorical variable was dummy-coded (1 = yes, 0 = no).

*loca parentis* of the study. All study recruitment and measurement procedures were approved by the school district and the university's institutional review board. Rates of participation of the student population in our study were high in any given wave by grade, ranging from 89% to 96% across waves.

The present study includes all students who participated in the study from seventh and eighth grades between Fall 2011 and Spring 2012 (i.e., Wave 2 and 3 of the larger study). Wave 1 data of the larger study were rendered unusable for two reasons. First, the questionnaire at Wave 1 (Spring 2011) did not include the final version of the felt pressure subscale. Second, due to another school's closure in the district, 142 new students were added to seventh grade (48% of total seventh-grade population at Wave 2) and 95 new students from another school were added to Grade 8 (30% of total eighth-grade population at Wave 2) during the fall of 2011. Given this addition of large number of new students due to the closing of a nearby school, the proportion of stable ties based on Jaccard index between Spring 2011 (Wave 1) and Fall 11 (Wave 2) fell below 13.5%, which violates SABM assumption that network ties represent stable states (as opposed to brief events, Snijders et al., 2010). Thus, we focused on Waves 2 and 3 of the larger study, and, unfortunately, also had to exclude 6 graders who participated in Waves 2 and 3 from the current analysis because only 16% of the friendships present at both time points were present at either one of the time points (based on Jaccard index, see Snijders et al., 2010). This indicates there was not enough stability in 6th graders' friendships to support the SABM assumption that friendships represent stable states. Because 19% of seventh graders' friendships and 22% of eighth graders' friendships remained stable from Wave 2 to 3 (based on Jaccard index), the analytical sample was restricted to students from seventh and eighth grades from Waves 2 and 3 of the larger study. For simplicity, they are herein referred to as Wave 1 and 2 of this longitudinal network-behavior study.

Our analytic sample ( $N = 670$ ) consisted of 330 students from seventh grade and 340 students from eighth grade for whom peer nomination and survey data were obtained. In Wave 1, 95% of seventh graders and 96% of eighth graders completed our survey. In Wave 2, 92% of seventh graders and 94% of eighth graders completed our survey. Considering the percentage of students who participated in the study at both time-points, 84.9% of students from seventh grade and 87.2% of students from eighth grade completed assessments at both time points. Boys comprised 46% of seventh and 53% of eighth grades. The mean age for seventh graders was 12.12 ( $SD = .53$ ) and for eighth graders, it was 13.15 ( $SD = .52$ ). For each grade, we provided descriptive information (see Table 1) on the percentage of students receiving free/reduced lunch (school-district reported proxy for socioeconomic status), generational status of parents, languages spoken at home, and family structure.

## Procedure

All participating students completed a survey packet in their classrooms. Nonparticipating students were asked to read a book or complete homework assignment during survey administration. Student assent was obtained on the day of data collection. The survey was completed in English as all students were fluent in English. Research staff read the survey aloud to the students to facilitate comprehension, and individual assistance was provided to students if needed. The survey took approximately two class periods (~90 min) total to complete, and students responded questions about their identity, psychological and educational outcomes on Day 1, and completed friendship nominations on Day 2. To thank participants for their time, all students received a small gift (i.e., a pen and a water bottle with the school's logo).

## Measures

**GI.** We developed a modification of Egan and Perry's (2001) measure of GI to assess the five dimensions of GI: *self-identification* as a member in a gender category (assessed as a categorical question in the demographic section of our survey), and four continuous measures of GI: *gender typicality* (the degree to which one feels as a typical member of one's gender group), *felt pressure from peers for gender conformity* (the degree to which one feels pressure from peers to conformity to gender stereotypes), and *intergroup bias* (the degree to which one holds negative views toward the other gender). In a study with a similar sample (i.e., multiethnic, 9 to 14-year-olds) conducted in the same region as the present study, the Harter response format (originally used by Egan and Perry) was shown to be confusing to children (Michaels, Barr, Roosa, & Knight, 2007), therefore, we used a Likert format to assess the four continuous measures of GI with response options to the items ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). In order to use a Likert scale, we also had to make minor modifications in the wording of the questions. For *gender typicality*, questions included, for example (for girls), "I feel that I am just like all other girls" (see the appendix in the Online Supplemental materials for all items in these scales). The *gender typicality* adapted scale for the present study consisted of five items (original measure consists of six), and the adapted version of this scale was shown to be internally consistent and reliable (Cronbach's alpha's

were .86 across the grades at Wave 1 and .89 at Wave 2). A higher score indicates feelings that one is a typical member of their gender category. We also adapted Egan and Perry's *gender peer felt pressure* scale because the original scale includes 10 items assessing felt pressure from peers as well as family. Because these may represent distinct sources of pressure, and because we are particularly interested in felt pressure from peers, we kept only four adapted items that assessed felt pressure from peers (e.g., "Other kids, who are girls like me, would get upset if someone who is a girl acts like a boy"). The *gender peer felt pressure* scale was shown to be internally consistent and reliable (Cronbach's alpha's were .75 across the grades at Wave 1 and .92 at Wave 2). The *gender intergroup bias* scale adapted for the present study consisted of three items (original measure consists of eight), and the adapted version of this scale was shown to be internally consistent and reliable (Cronbach's alpha's were .85 across the grades at Wave 1 and .85 at Wave 2). A higher score indicates negative feelings toward the other gender group. In order to measure *gender contentedness* (the degree to which one feels content with one's gender group), we adapted Sellers, Smith, Shelton, Rowley, and Chavous (1998) measure of private regard (3 items). We did so because the items in the Sellers et al. (1998) scale are already in Likert-format and due to similarities to the Egan and Perry measure of contentedness (for a boy, e.g., "I feel good about being a boy"). In keeping with our use of Egan and Perry's framing, we refer hereafter to this adapted scale as *gender contentedness*. The *gender contentedness* scale was shown to be internally consistent and reliable (Cronbach's alpha's were .64 across the grades at Wave 1 and .76 at Wave 2). A higher score indicates feelings that one is content with one's gender category. Because SABM requires discrete ordinal behavioral outcome variables, we recoded each of the continuous GI variables into ordinal variables. Each was recoded to four levels, using increments of 1  $SD$  of the continuous  $z$ -score ( $z < -1$ ,  $-1 \leq z < 0$ ,  $0 \leq z < 1$ ,  $z \geq 1$ ; e.g., Delay, Ha, Van Ryzin, Winter, & Dishion, 2016).

**Friendship networks.** Participants received a roster listing all students from their grade and were asked to nominate up to 10 friends of either gender. These friendship nomination data were used to construct friendship network matrices of seventh and eighth grade students for Wave 1 and Wave 2 such that these matrices contained unilateral (i.e., A nominated B) friendship nominations that were coded in a binary fashion such that 1 denoted that a friendship tie existed between A and B, and 0 indicated no tie existed between A and B.

**Demographic variables.** Adolescents reported their gender (male = 1, female = 0) and race/ethnicity (dummy-coded: 1 = yes, 0 = no, for the following categories: English European American, African American, Native American, Latina/o, Other Race/Ethnicity), language spoken at home (dummy-coded: 1 = yes, 0 = no, for the following categories: English, Spanish, both English and Spanish, and other language), family structure (two parent = 1 vs. single parent = 0), and generational status (dummy-coded: 1 = yes, 0 = no, for the following categories: both U.S. born, one parent foreign born, both parents foreign born). The district provided data on each student's free and reduced lunch status (a proxy for socioeconomic status, coded 1 = yes, 0 = no).



## Overview of Stochastic Actor-Based Modeling

Employing SABM approach provides key advantages for the study of peer influence on GI dimensions because it allows for estimation of the degree of peer influence on changes in GI dimensions while controlling for a host of potentially confounding processes, including (a) initial selection into friendships based on gender and similar levels of GI aspects and (b) network structural processes (e.g., reciprocity and popularity).

**Model overview.** The SABM consists of two submodels that are simultaneously estimated (Snijders et al., 2010). The *network submodel* tests the likelihood of friendship ties between adolescents based on various network selection processes. The *behavior submodel* captures effects related to changes in GI over time. The model estimates changes between the observed networks using a continuous-time Markov process that allows for a sequence of a large number of unobserved microsteps to be taken between observation points (one network tie or a behavior can be changed in one microstep). An evaluation function describes the “rules” that guide actors’ decisions, which are the model parameters for the hypothesized selection and influence effects. A rate function determines how many opportunities for change occurs between waves. Model estimation uses a method of moments procedure to estimate parameters. This procedure calculates summary statistics based on the effects included in the model. These statistics are counts that represent various network structures, such as the number of gender homophilous dyads, observed at Time 2 (for details, see Snijders, Steglich, & Schweinberger, 2007). The goal during estimation is to identify parameter values that allow the model to produce networks whose summary statistics match those observed in the data (i.e., at Time 2). The estimation algorithm reaches convergence when  $t$  statistics representing deviations between the observed and model-implied networks are less than 0.1 for each model parameter and less than 0.25 across all of the model parameters. Model parameters are tested for significance based on a  $t$ -ratio (estimate divided by the standard error).

**Model effects.** With respect to the SABM specification, for the network submodel, we considered three types of effects on network selection for each of the four dimensions of GI. The *GI ego* effect estimates the effect of GI (e.g., typicality, felt pressure) on an adolescent’s tendency to nominate others as friends. A positive effect would indicate that adolescents with greater levels of GI nominated more friends over time. The *GI alter* effect describes how GI affects adolescents’ likelihood of receiving nominations from peers. A positive effect would indicate that adolescents with higher levels of GI (e.g., typicality, felt pressure) were more likely to be nominated as friends by their peers. In our preliminary models, we also considered alter squared effect that accounts for nonlinearity in the associations between *GI* dimensions and incoming friendship ties; however, these effects were not significant and thus were omitted from the final models. The *GI similarity* effect estimates the tendency of adolescents to nominate friends who have similar levels of respective GI self-construct (measured by their absolute difference). A positive effect of GI similarity would mean that adolescents were more likely to form friendships among peers with similar levels of GI. Additionally, we estimated the effect of similarity on gender and ethnic/racial background on the likelihood of network selection. Finally, we included parameters for several network structural processes. *Rec-*

*iprocity* captured whether adolescents were more likely to nominate peers who had nominated them. We used *geometrically weighted edgewise shared partners (GWESP) effects* and an interaction of GWESP and reciprocity to model *triadic closure* processes by assessing whether having multiple friends in common increased the likelihood of friendship formation. The *indegree popularity* effect estimated whether students who previously received more nominations were more likely to receive additional nominations over time. The *indegree activity* effect estimated whether students who received more nominations were more likely to send out a greater number of nominations. Finally, the *outdegree activity* effect estimated whether students who previously sent out a higher number of ties were more likely to subsequently send many ties. We used a square-root transformation of these activity and popularity effects to give greater weight to differences in popularity and activity at low versus high levels. The network function also included effects for *outdegree*, which controlled for the number of ties. Finally, *network rate effect* represented network change opportunities.

Turning to the behavior submodel, we tested two effects that represent feedback on the four dimensions of GI. The *linear shape* effect expresses the basic tendency toward higher or lower values of GI, whereas the *quadratic shape* effect allows for the self-reinforcement of GI that can result in a bimodal distribution of GI. We then estimated the peer influence effect on each of the four GI dimensions using *total similarity effect*. This effect predicts changes in GI based upon how similar an adolescent’s GI is to the *total levels* of GI across all of his or her friends. A positive effect indicates that changes in GI bring an adolescent closer to his or her friends’ level of GI. This effect is weighted by the total number of friends, and thus it considers the overall level of a particular aspect of GI in a friendship network. Lastly, for each of GI dimensions, the models included distinct *rates* representing behavior change opportunities.

## Results

### Descriptive Analyses

For each grade, we present descriptive statistics for the sample in Table 1. Zero-order correlations among GI dimensions are presented for each grade by gender in Table 2. Results indicated relative stability in GI dimensions from Time 1 to 2: significant and positive correlations were found between Waves 1 and 2 for gender typicality, intergroup bias, felt pressure, and contentedness, for both boys and girls from seventh and eighth grades. Correlations across GI dimensions are presented for each grade and by gender in Table 2. Results reveal relatively low but significant associations and somewhat similar patterns across the two grades.

To examine gender differences in GI dimensions, we used independent samples  $t$  tests and reported Cohen’s  $d$  values, which assessed the magnitude of mean-level differences in GI dimensions that is attributable to each gender (Cohen, 1988; Table 3). For seventh graders, results showed gender differences at Waves 1 and 2 in typicality, intergroup bias, and felt pressure. Specifically, at both waves, boys reported feeling more gender typical and reported more felt pressure for gender conformity from peers than girls. However, girls reported higher intergroup bias than boys at both waves. Interestingly, there were no significant gender differ-

Table 2  
Correlations Among GI Dimensions Per Grade

Dimension	1	2	3	4	5	6	7	8
7 grade								
1. GI typicality Wave 1	—	.475**	.259**	.125	-.103	.080	.150	-.017
2. GI typicality Wave 2	.578**	—	.134	.395**	-.023	-.057	.069	.001
3. GI contentedness Wave 1	.438**	.329**	—	.317**	.100	.023	.106	-.013
4. GI contentedness Wave 2	.450**	.438**	.549**	—	.064	.140	-.012	.120
5. GI intergroup bias Wave 1	.267**	.334**	.258**	.214**	—	.250**	-.130	.071
6. GI intergroup bias Wave 2	.241**	.233**	.306**	.470**	.395**	—	.056	.120
7. GI felt pressure Wave 1	-.068	-.11	-.183*	-.226*	.163*	-.003	—	.429**
8. GI felt pressure Wave 2	-.108	-.25**	.141	-.213*	-.071	-.119	.412**	—
8 grade								
1. GI typicality Wave 1	—	.522**	.434**	.210*	.042	-.044	.093	.020
2. GI typicality Wave 2	.685**	—	.274**	.388**	.086	.086	.161	.213**
3. GI contentedness Wave 1	.402**	.495**	—	.398**	.035	-.091	.226**	.035
4. GI contentedness Wave 2	.306**	.570**	.538**	—	-.054	.055	.125	.254**
5. GI intergroup bias Wave 1	.075	.188*	.180*	.141	—	.424**	-.025	-.156
6. GI intergroup bias Wave 2	.294**	.382**	.246**	.236*	.316**	—	-.141	-.025
7. GI felt pressure Wave 1	.018	-.057	-.011	-.028	-.033	-.022	—	.274**
8. GI felt pressure Wave 2	.001	.091	.028	.045	.111	.165	.465**	—

Note. GI = gender identity. Boys are above the diagonal and girls below the diagonal. Ns range from 240 to 333.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

ences in contentedness at either waves. Results were similar for eighth grade, with the exception of contentedness at Wave 1, in which girls reported feeling more gender contentedness than boys.

Considering network characteristics for the two grade-level networks, our descriptive analyses revealed that at Wave 1, on average, seventh graders nominated 6.33 friends and eighth graders reported 6.83 friendship ties (at Wave 2, the respective average outdegrees were 6.02 and 6.98). We observed that the grade-level networks had a fairly low density (i.e., proportion of existing friendship ties relative to the total possible ties) of .02, suggesting that most of the total possible ties in the network do not exist. In Wave 1, there were 2032 ties among seventh-grade and

2246 among eighth-grade students; at Wave 2, there were 1881 and 2306 friendships in these grade-level networks. To assess the degree of network change, we calculated the Jaccard index, which denotes the proportion of ties that are present at both waves. These indices were .19 for seventh and .22 for eighth grades suggesting a sufficient balance of stability and change in friendships over time, making the SABM approach suitable (Snijders et al., 2010).

### Overview of SABM Analyses

We estimated two types of models for each of the two grades. The first model addressed our main goal of examining peer net-

Table 3  
Gender Differences in GI Dimension Per Grade

Dimension	7 Grade					8 Grade				
	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	Cohen's <i>d</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	Cohen's <i>d</i>
Girl GI typicality Wave 1	3.51	0.93	-4.46**	295	-0.52	3.43	0.88	-3.80**	311	-0.43
Boy GI typicality Wave 1	3.95	0.73				3.81	0.87			
Girl GI typicality Wave 2	3.38	0.90	-4.60**	271	-0.56	3.32	0.84	-4.81**	288	-0.57
Boy GI typicality Wave 2	3.86	0.813				3.80	0.85			
Girl GI intergroup bias Wave 1	3.52	1.03	8.20**	295	0.95	3.41	0.91	7.54**	310	0.86
Boy GI intergroup bias Wave 1	2.61	0.86				2.65	0.86			
Girl GI intergroup bias Wave 2	3.50	0.96	6.85**	269	0.83	3.26	0.93	6.21**	287	0.73
Boy GI intergroup bias Wave 2	2.75	0.82				2.60	0.88			
Girl GI felt pressure Wave 1	2.49	1.06	-11.05**	294	-1.29	2.41	0.98	-13.68**	309	-1.56
Boy GI felt pressure Wave 1	3.84	1.03				4.02	1.07			
Girl GI felt pressure Wave 2	2.40	1.05	-8.77**	268	-1.07	2.420	.95	-11.70**	287	-1.38
Boy GI felt pressure Wave 2	3.65	1.27				3.85	1.11			
Girl GI contentedness Wave 1	4.37	0.67	-0.02	295	0	4.33	0.62	1.98*	311	0.22
Boy GI contentedness Wave 1	4.37	0.56				4.20	0.58			
Girl GI contentedness Wave 2	4.25	0.72	-0.72	271	-0.09	4.13	0.79	-1.55	287	-0.18
Boy GI contentedness Wave 2	4.32	0.67				4.26	0.65			

Note. GI = gender identity. The effect size corresponding to Cohen's *d* is determined using the following ranges (Cohen, 1988): small (.2-.3), medium (.31-.50), and large (>.8) effect sizes.

\*  $p < .05$ . \*\*  $p < .001$ .

work influence on GI dimensions while controlling for contributions of gender and GI to network selection as well as network structural effects. A second model addressed our exploratory goal of examining whether gender moderated peer network influence and network selection on the four dimensions of GI. We conducted these analyses using *RSiena* 4.0 (version 1.1–290; Ripley, Snijders, Boda, Voros, & Preciado, 2016) in *R* (version 3.3, R-Project; <http://www.r-project.org>). We followed the recommended forward-fitting model specification approach to avoid multicollinearity among network effects (Snijders et al., 2010). This iterative approach uses a score-type test to compare the fit of statistics representing potential effects with the effect included versus excluded from the model (Schweinberger, 2012). Effects that are significant, indicating that they are likely to improve the fit of the model, are sequentially included. Our preliminary score-type test analyses indicated that there were no significant gender differences in contributions of GI components to network selection, but there were potential gender differences in magnitude of peer influence and GI dimensions levels, which were examined in the second model. Additionally, because students were given an option to nominate up to 10 friends, we initially specified maximum outdegree to be 10. When evaluating the goodness of fit, which compares characteristics of model-implied simulated networks to the characteristics of the observed network at Time 2, we discovered that our model implied simulated data had fewer networks with outdegrees of 9 and 10 compared with the observed data. This lower simulated count of outdegrees occurred because for those individuals with 10 outgoing ties, the model proceeded by dropping ties and adding new ties, not necessarily exchanging ties. Thus, in the final models we specified maximum outdegree to be 11 to approximate the number of higher outdegrees in simulated networks and improve the goodness of fit. We present the goodness of fit for the first model for seventh and eighth grades (see Figures 1A and 1B in the online supplementary materials). Finally, in the presented models, convergence was achieved because  $t$  statistics representing deviations between the observed and model-implied networks were less than 0.1 for individual model parameters and less than 0.25 across all of the model parameters.

**Peer influence on GI dimensions.** We begin by considering the results of Model 1, which addressed our goal of examining peer influence on GI while controlling for network selection dynamics (GI Dynamics, Model 1, Table 4). Whereas we expected to find network influence on GI, we considered the possibility that the four dimensions of GI may show differing levels of influence, with influence being greater for the between-gender aspects of GI. As anticipated, we found evidence for significant and positive peer influence on *felt pressure for gender conformity* for eighth graders (est. = .31,  $p < .05$ ) suggesting that, over time, these students' levels of gender felt peer pressure became similar to those of their friends compared with those with whom they were not friends. To assess the magnitude of this effect, we calculated odds ratio for change in these dimensions of GI (see Ripley et al., 2016 for details). Having one additional friend who felt higher level of pressure for gender conformity than the focal individual increased the odds for the focal youth to also increase their levels of felt pressure by a factor of  $\exp(.31/3) = 1.11$ , compared with no change in this GI dimension. This means that eighth-grade students had an 11% increase in the odds of GI change when at least on their friends had a higher level of felt pressure for gender conformity.

We also observed significant and positive peer influence on *intergroup bias* among both seventh and eighth graders (est. = .80,  $p < .001$ ; est. = .52,  $p < .001$ ). Considering the magnitude of these effects, the results show that for seventh graders, having one additional friend who felt higher levels of intergroup bias than the focal individual increased the odds for the focal youth to also increase their levels of intergroup bias compared with no change by a factor of  $\exp(.80/3) = 1.31$ , or a 31% increase in the odds of GI change. Among eighth graders, the same scenario of peer influence would result in an increase of intergroup bias change by a factor of  $\exp(.52/3) = 1.19$ , or an 19% increase in the odds of GI change. Finally, we did not document significant peer influence effects for *gender typicality* and *gender contentedness* (i.e., the within-person dimensions of GI) in the networks of seventh or eighth graders.

**Network selection on gender and GI dimensions.** To determine whether influence occurred and to obtain unbiased estimates of influence, we examined these processes in a model that also controlled for network selection on GI dimensions of interest (i.e., how GI affects initial selection of friends; Network Selection Dynamics, Model 1, Table 4). Thus, we assessed how the four GI dimensions were associated with network selection. Our results showed that eighth graders befriended others with similar levels of *gender contentedness* (est. = .42,  $p < .01$ ) and *gender typicality* (est. = .31,  $p < .05$ ). We found that both seventh and eighth graders who reported higher levels of *gender contentedness* were more likely to send out a higher number of friendship ties (est. = .12,  $p < .05$ ; est. = .12,  $p < .01$ ). Our results showed that seventh graders with higher levels of *intergroup bias* were less likely to be nominated as friends by their peers (est. =  $-.08$ ,  $p < .05$ ). We found no evidence that adolescents selected friends based on similarity on levels of *intergroup bias* or on *felt pressure for gender conformity*.

**Network selection on control variables and network structural processes.** Our modeling approach obtained estimates of network influence and selection on GI dimensions, while controlling for several confounding network selection and network structural processes. When studying associations between GI self-concepts and networks, the key process to control for is gender segregation in friendship networks. Our models included such controls and revealed a significant homophily on *gender* in both grades (est. = .43,  $p < .001$ ,  $OR = 1.54$  for seventh graders; est. = .25,  $p < .001$ ,  $OR = 1.28$  for eighth graders) suggesting that friendship ties were 54% more likely to be formed among seventh graders of the same gender and 28% more likely among eighth graders of the same gender. We also controlled for contribution of similarity on ethnic/racial background as affecting the likelihood of friendship ties. In both grades, we found significant and positive Latina/o similarity effect suggesting that friendships were more likely to form among Latina/o youth (est. = .16,  $p < .001$ ; est. = .10,  $p < .001$ ). Among eighth graders only, we also documented that students were more likely to select each other as friends if both of them were African American (est. = .19,  $p < .001$ ). In both grades, being in the same Social Studies classroom increased the odds of friendship ties (est. = .44,  $p < .001$ ; est. = .51,  $p < .001$ ).

In addition to estimating these confounding network selection processes, we also included network structural effects (e.g., reciprocity, transitivity) in our models. We found that adolescents' networks were formed through several common network structural

Table 4

## SABM Results for Peer Influence on GI and Network Selection on GI

Effects	7th grade						8th grade					
	Model 1			Model 2			Model 1			Model 2		
	Est.	St. Er	<i>p</i>	Est.	St. Er	<i>p</i>	Est.	St. Er	<i>p</i>	Est.	St. Er	<i>p</i>
GI dynamics												
GI typicality linear shape	-.02	.08		-.03	.10		.10	.09		.12	.10	
GI typicality quadratic	-.12	.19		-.30	.24		.01	.18		-.21	.24	
Peer influence on GI typicality	.10	.22		-.08	.26		.32	.22		.13	.25	
GI typicality from Boy				.56	.26	*				.62	.21	***
Peer influence on GI Typicality $\times$ Boy				-.29	.21					.02	.21	
GI contentedness linear shape	.31	.09	***	.30	.09	***	.11	.07		.11	.07	
GI contentedness quadratic shape	-.18	.21		-.17	.18		.09	.14		.09	.15	
Peer influence on GI contentedness	-.23	.25		-.23	.23		.13	.17		.13	.18	
GI contentedness from Boy				.11	.16					.34	.15	*
Peer influence on GI Contentedness $\times$ Boy				.03	.18					.06	.17	
Intergroup bias linear shape	.10	.10		.05	.11		.28	.09	***	.27	.10	***
Intergroup bias quadratic shape	.26	.18		.01	.23		.13	.15		-.04	.18	
Peer influence on intergroup bias	.80	.29	***	.61	.32		.52	.19	***	.36	.21	
Intergroup bias from Boy				-.45	.29					-.33	.20	
Peer influence on intergroup bias $\times$ Boy				.59	.35					-.12	.21	
Felt pressure linear shape	.10	.07		.09	.07		.05	.08		.05	.08	
Felt pressure quadratic shape	.15	.11		-.05	.20		.15	.11		-.15	.19	
Peer influence on felt pressure	.24	.14		.02	.22		.31	.15	*	.05	.20	
Felt pressure from Boy				.46	.31					.68	.30	*
Peer influence on felt pressure $\times$ Boy				-.11	.18					-.23	.20	
Network dynamics												
GI effects on network selection												
GI typicality alter	-.02	.03		-.02	.04		-.03	.03		-.03	.03	
GI typicality ego	-.01	.05		-.01	.04		-.10	.05	*	-.11	.06	
GI typicality similarity	.34	.17	*	.34	.19		.31	.15	*	.31	.16	*
GI contentedness alter	.06	.05		.06	.05		-.02	.04		-.02	.04	
GI contentedness ego	.12	.06	*	.12	.06	*	.12	.05	**	.11	.06	
GI contentedness similarity	-.08	.26		-.08	.24		.42	.17	**	.42	.16	***
Intergroup bias alter	-.08	.04	*	-.08	.05		.04	.04		.05	.04	
Intergroup bias ego	-.02	.06		-.02	.07		.05	.06		.05	.07	
Intergroup bias similarity	-.39	.20		-.40	.26		-.07	.19		-.07	.23	
Felt pressure alter	.01	.04		.01	.05		.02	.03		.02	.04	
Felt pressure ego	-.01	.05		-.01	.06		.05	.05		.06	.06	
Felt pressure similarity	-.39	.18	*	-.42	.21	*	.03	.14		.03	.15	
Individual attributes effects on network selection												
Boy alter	-.11	.08		-.11	.09		-.02	.07		-.02	.07	
Boy ego	-.01	.09		-.01	.11		-.04	.08		-.06	.10	
Boy similarity	.43	.05	***	.44	.06	***	.25	.04	***	.24	.05	***
European American similarity	.07	.07		.06	.08		.12	.07		.12	.07	
African American similarity	.08	.06		.08	.06		.19	.05	***	.19	.05	***
Native American similarity	.06	.08		.07	.08		.03	.08		.04	.08	
Latina/o similarity	.16	.05	***	.16	.05	***	.10	.04	**	.10	.04	*
Other ethnicity similarity	.09	.09		.09	.10		-.11	.07		-.11	.08	
Same wave started	.06	.04		.06	.04		.00	.04		.00	.04	
Same classroom	.44	.06	***	.44	.06	***	.51	.06	***	.51	.06	***
Network structural processes												
Network rate	22.93	1.11	***	22.95	1.41	***	22.99	.95	***	22.98	1.22	***
Outdegree (density)	-1.43	.31	***	-1.40	.38	***	-1.87	.33	***	-1.87	.35	***
Reciprocity	1.83	.14	***	1.82	.15	***	2.01	.11	***	2.01	.11	***
Number of actors at distance 2	-.16	.04	***	-.16	.05	***	-.11	.04	***	-.11	.03	***
GWESP $i \rightarrow k \rightarrow j$	.62	.20	***	.62	.23	***	.44	.18	**	.44	.17	***
GWESP $i \leftarrow k \leftarrow j$	-.04	.12		-.04	.12		-.19	.09	*	-.19	.11	
GWESP $i \rightarrow k \leftarrow j$	.50	.23	*	.50	.21	**	.84	.12	***	.83	.20	***
GWESP $i \leftarrow k \rightarrow j$	-.60	.15	**	-.60	.17	**	-.62	.19	***	-.62	.12	***
Indegree—popularity (sqrt)	.09	.04	*	.09	.05		.07	.03	*	.07	.03	*
Indegree—activity (sqrt)	-.09	.11		-.10	.12		-.30	.10	***	-.29	.12	**
Outdegree—activity (sqrt)	-.09	.07		-.10	.09		.14	.08		.14	.08	

Note. Peer influence was parameterized as total similarity. Categorical variables (boy, ethnic/racial categories, same school wave started, same social studies classroom) were dummy-coded (1 = yes, 0 = no). SABM = stochastic actor-based modeling; GI = gender identity; GWESP = geometrically weighted edgewise shared partners; sqrt = square root.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$  (all two-tailed).



processes. Specifically, a high degree of reciprocation of friendship nominations was observed (est. = 2.51,  $p < .001$ ; est. = 3.05,  $p < .001$ ). To model transitivity, we examined several GWESP effects that represented relevant triadic configurations. First, a significant and positive GWESP  $i \rightarrow k \rightarrow j$  effect indicated that individual  $i$  was increasingly likely to form a connection to  $j$  when they had at least one mutual friend  $k$  such that  $i$  nominated  $k$  and  $k$  nominated  $j$ , whereas having additional mutual friends beyond  $k$  contributed to a smaller extent to this likelihood (est. = .62,  $p < .001$ ; est. = .44,  $p < .001$ ). Next, a significant and positive GWESP  $i \rightarrow k \leftarrow j$  effect indicated that individual  $i$  was increasingly likely to form a connection to  $j$  when they had at least one mutual friend  $k$  such that both  $i$  and  $j$  nominated  $k$ , whereas having additional mutual friends beyond  $k$  contributed to a smaller extent to this likelihood (est. = .50,  $p < .05$ ; est. = .84,  $p < .001$ ). Finally, a significant and negative GWESP  $i \leftrightarrow k \leftrightarrow j$  effect showed that  $i$  was less likely to form a connection to  $j$  when they had at least one mutual friend  $k$  to whom they were connected through reciprocated ties, whereas having additional mutual reciprocally connected friends beyond  $k$  contributed to a smaller extent to this likelihood (est. = -.60,  $p < .001$ ; est. = -.62,  $p < .001$ ). The negative parameter for the number of actors at distance of 2 is another indicator of transitivity in the network, suggesting that individuals are not friends when they do not have several friends in common (est. = -0.16,  $p < .001$ ; est. = -0.11,  $p < .001$ ). In both grades, the positive indegree popularity effect (est. = .09,  $p < .05$ , est. = .07,  $p < .05$ ) showed that students who received a high number of friendship nominations were more likely receive additional friendship ties (i.e., network popularity reinforces itself). Among eighth-grade students, a significant and negative indegree activity effect indicated that students who received a high number of friendship nominations were less likely to send out friendship ties (est. = -.30,  $p < .001$ ).

**Gender differences in peer influence processes.** Our final goal was to explore whether the strength and magnitude of peer influence processes were different for boys and girls (GI dynamics, Model 2, Table 4). Our results revealed no significant gender differences in the magnitude of peer influence on any dimensions of GI. Finally, several gender differences are noteworthy in the mean levels of GI constructs. Specifically, boys from eighth grade reported significantly greater levels of *gender typicality*, *contentedness* and *felt pressure for gender conformity* compared with girls. Boys from seventh grade reported significantly greater levels of *gender typicality* only.

**Assessing goodness of fit.** As the final step, we followed established procedures for evaluating goodness of fit for statistical network models (Hunter, Goodreau, & Handcock, 2008; Ripley et al., 2016). Conventional model fit indices (e.g., AIC and BIC) are not appropriate in network modeling because “observations are not independent and identically distributed sample” (Hunter et al., 2008, p. 257). Alternative methods have been developed to evaluate goodness of fit of network models, which involve a comparison of model-implied simulated networks to the observed data in regards to various network properties. We assessed fit for the final Model 1 with respect to the following auxiliary statistics: distributions of outgoing friendship ties (outdegree), incoming friendship ties (i.e., indegree), geodesic distance distributions, triad census as well as behavior distribution for each of the four GI self-concepts (Lospinoso, Schweinberger, Snijders, & Ripley,

2011). Using the *sienaGOF* function, goodness of fit is assessed by comparing the observed values at the end of the period (i.e., Time 2) with simulated values from the model (Ripley et al., 2016). These differences are assessed by the Mahalanobis distance, which at  $p > .05$  levels suggests that the predicted auxiliary statistic distribution does not significantly depart from the observed statistic, indicating adequate fit of the model to the data. Considering GOF for the seventh-grader network (see Figure 1A in the online supplemental materials), our results show that the distributions of indegrees ( $p = .34$ ), triadic configurations ( $p = .70$ ), GI contentedness ( $p = .41$ ), and gender intergroup bias ( $p = .26$ ) in the model-implied simulated networks were not different from the distribution of these configurations in the observed network at Time 2. Our GOF results demonstrated that for the eighth graders (see Figure 1B in the online supplemental materials) the distributions of indegrees ( $p = .50$ ), gender typicality ( $p = .22$ ), gender intergroup bias ( $p = .30$ ), and felt pressure for gender conformity ( $p = .08$ ) in the model-implied simulated networks were not different from the distribution of these configurations in the observed network at Time 2. These analyses suggest that, overall, our model did a good job at reproducing these properties of the observed networks. The GOF for outdegree distributions for the seventh graders ( $p = .004$ ) and eighth graders ( $p = .007$ ) and geodesic distance distributions for both age groups ( $p$ 's = .00) showed a significant difference between the model-implied simulated networks and the observed network, suggesting that the model is not perfectly reproducing the distribution of outdegree and geodesic distances. To convey why the outdegree distribution was just shy of fitting, we present Figure 1 (see the Online Supplemental materials). In these figures, the red dots and values represent the observed network properties, and gray lines represent 90% confidence intervals for the model-implied simulated networks. The placement of the red line within the 90% confidence interval boundaries indicates that our model produced adequate to good goodness-of-fit statistics for the key auxiliary statistics. The lack of fit for outdegree for the seventh and eighth-grade network was because the model was not able to account for the “jump” in the cumulative outdegree distribution from 9 and 10 suggesting that there is a higher number of individuals who send out 9 and 10 friendship nominations, compared with what is expected under the model. The lack of fit for geodesic distance appears to be due to the model producing significantly higher levels of geodesic distance of 4 suggesting that model-implied networks are more connected than the observed network. The lack of fit in triad census statistic in eighth grade ( $p = .027$ ) appears to be driven by abundance of a particular triadic configuration in our data (030T, or  $A \rightarrow B \leftarrow C$ ,  $A \rightarrow C$ ). Finally, our model shows deviations between model-produced distributions of the following three behavioral outcomes: GI typicality ( $p = .03$ ) and felt pressure for gender conformity ( $p = .02$ ) for seventh graders and GI contentedness ( $p = .01$ ) for eighth graders. In summary, although the statistical test of GOF for these parameters suggested significant differences between simulated and observed networks because the red line remained within grey bands, representing 90% CI, we concluded that overall the model produced an adequate fit to the data.

## Discussion

The main goal of this study was to investigate peer influences in between- and within-gender dimensions of GI in young adolescents' peer networks. In doing so, we used a state-of-the-art analytical approach that allowed us to examine whether friends become similar to one another on dimensions of GI over time (peer influence), while statistically controlling for similarities in GI self-concepts that may stem from peers preferring to befriend others with similar levels of GI (peer selection). Consistent with our expectations, we found significant and positive peer socialization effects on between-gender dimensions of GI: *intergroup bias* among seventh and eighth graders and *felt pressure for gender conformity* for adolescents in eighth grade. In addition, and as expected, adolescents in both grade cohorts formed friendships with students of the same gender, and among eighth graders, friendship network selection was also based on similarity on within-gender dimensions of GI: *gender typicality* and *contentedness*. Additionally, adolescents who were more content with their gender sent out a higher number of friendship nominations, whereas those seventh graders holding more negative attitudes toward other gender were less attractive as a potential friend. Finally, we did not observe gender differences in the magnitude of peer network influence on GI self-concepts. Despite decades of research highlighting the role of peers in gender socialization, this is the first study, to the best of our knowledge, to document that adolescents become similar to their friends on certain dimensions of GI. These findings make important conceptual contributions to the body of work concerning the role of peers and social context for identity and gender development more broadly (e.g., Egan & Perry, 2001; Yunger et al., 2004). Methodological advances in longitudinal social network analysis (Snijders et al., 2010) enabled the current investigation to provide a nuanced description of the role that the peer context plays in shaping GI.

Our findings regarding peer influence on between-gender dimensions of GI are that, over the course of the school year, seventh and eighth graders changed their levels of *gender intergroup bias* (i.e., negative feelings toward the other gender) to become similar to the intergroup bias levels of their friends. That is, youth who reported being low on gender intergroup bias, who were friends with adolescents with high gender intergroup bias, moved toward their friends' levels of bias, whereas youth who reported initial high levels of gender intergroup bias, whose friends reported low levels of bias, moved their levels of gender bias to better match those of their friends. The observed pattern of peer influence on gender intergroup bias is in line with theoretical proposals that social stereotyping and prejudice develop through establishing psychological salience of the other group, explicit discussions of salient group's attributes, and development of affective components of intergroup bias (Bigler & Liben, 2007). Because gender intergroup bias stems from magnification of gender differences and expanded stereotype use (Powlishta, 1995), our findings of significant peer influence effects contribute not only to GI research but also to applications of intergroup theory within the developmental literature. Consider, for instance, that for some adolescents, peers appear to make the other gender group more salient and more susceptible to negative comments, but for other adolescents, peers appear to make the other group less salient and less susceptible to negative comments. In keeping with social identity and intergroup

theories (e.g., Bigler & Liben, 2007), we might expect that the adolescents who make the other gender salient by making these negative comments will develop even more negative stereotypes over the course of the year as compared with the group who has not focused such negative attention on the out-group of other-gender peers.

Our results also document evidence of peer influence for eighth graders on *felt pressure from peers for gender conformity*, such that adolescents changed their levels of peer felt pressure to become similar to the levels of felt pressure experienced by their friends. Because this particular dimension of gender self-concept focuses on the adolescents' perceptions of what is accepted and enforced by their peer group, it may be less surprising that we found peer influence on this aspect of GI among friends. Felt pressure for gender conformity is a relevant aspect of social cognition for this developmental age because adolescents are particularly sensitive to peer evaluations (O'Brien & Bierman, 1988). This finding takes on added significance, given research showing that experiencing high levels of pressure for gender conformity has detrimental consequences in terms of psychological well-being (Egan & Perry, 2001; Yunger et al., 2004).

The findings concerning intergroup bias and felt pressure for gender conformity were consistent with our expectation that the between-gender group dimensions of GI might be more susceptible to peer influence than the within-gender dimensions of GI. It is interesting to consider how this influence occurs. We hypothesized this pattern because statements about intergroup bias and pressure to conform to gender norms might be shared among friends or overheard, similar to what has been documented for discussions of different ethnic-racial groups (Kiesner et al., 2003). Due to these overt conversations and greater visibility, between-gender dimensions of GI appear to be easier targets of peer influence than within-gender GI self-concepts GI (gender typicality and contentment) which are more internal cognitive and affective states. As a result, both felt pressure and intergroup bias are likely to be influenced through direct peer actions of modeling bias, or reinforcing, punishing, or ignoring particular statements made in the peer group. Indirect means are also likely effective in promoting socialization as adolescents have strong motivation to "fit in" with their peers by showing similar intergroup biases, recognizing peers' attitudes about gender nonconformity or conformity, and changing their behavior to better match their friends. Although specific mechanisms of peer influence were not explicitly tested, they likely involve a combination of direct or indirect social transmission of ideas, rewards and punishments, and modeling. Investigation of the specific methods of peer influence and the directionality of these effects are worthy topics for future research.

One of the issues in understanding peer influence is that friends often select others similar to themselves thereby confounding peer influence effects with network selection effects. Our use of longitudinal SNA methods permitted controlling for these confounding network selection processes including the role of gender in network selection and the contributions of GI dimensions in network selection. Our results on network selection by gender demonstrated that adolescents across both grades tended to befriend each other if they were of the same gender. This observation is in line with nearly universal patterns observed in childhood and adolescence in which preferences are shown for same-gender peers (e.g., Mac-

coby, 1998; Mehta & Strough, 2009) as well as with other social network studies of gender development (Martin et al., 2013).

The present study was also the first to examine whether adolescents select peers based on the four dimensions of GI. We anticipated that adolescents may prefer to form friendships with others who have similar levels of GI dimensions, including both between- and within-gender self-concepts, because past research has shown that homophily or similarity on gender-typed behaviors drives peer affiliation dynamics among young children (Martin et al., 2013). Consistent with these expectations, we found that eighth graders were more likely to select each other if they reported similar levels of *gender typicality*. This finding is intriguing since it suggests that, although gender typicality is an internal and global part of personal identity, there may be external manifestations of typicality that are apparent to adolescents at least by eighth grade. Egan and Perry (2001) found that gender typicality was positively correlated with gender-typed activities, so it could be that adolescents use gender typed activity engagement as signals or cues of similarity in gender typicality. However, if that is the case, it is surprising that younger adolescents do not also use engagement in gender-typed activities as signals. Further research is needed to explore whether younger adolescents are less motivated to select friends based on similar levels of gender typicality or whether they are less susceptible to the cues that suggest gender typicality.

As anticipated, we found that homophily on *gender contentedness* also increased the likelihood of friendship ties among seventh and eighth graders. Being content with one's gender appeared to be a salient cue for friend selection. Contentment may be marked by acceptance of one's gender category and may not be visibly manifested; however, lack of contentment, that is, expressions or actions that signal a lack of happiness with being of one's gender, may be more salient (Carver et al., 2003; Yunger et al., 2004). Because past research has shown that gender contentedness and typicality are positively correlated with social skills, self-esteem, and greater peer acceptance (Carver et al., 2003; Smith & Leaper, 2006; Yunger et al., 2004), future research would benefit from examining these associations within mediation analytical framework to elucidate the mechanisms linking within-gender self-concepts, peer relationships, and wellbeing.

We expected that between-gender aspects of GI would be deleterious for friendship selection dynamics and subsequently negatively associated with the number of friendship nominations sent out to and received from the grade-mates because the past research has shown that intergroup bias and pressure for gender conformity often translate into externalizing problems and difficulties with peers (Carver et al., 2003; Smith & Leaper, 2006; Yunger et al., 2004). Our findings provided partial support to these hypotheses and revealed that in seventh grade, intergroup bias (i.e., holding negative feelings toward the other gender) was negatively associated with the likelihood of being nominated as a friend by others. It is plausible that holding more negative attitudes toward the other gender constrains friendship formation opportunities (i.e., across gender lines), which may result in lower attractiveness of an individual with higher levels of intergroup bias as a friend. This pattern replicates a previously suggested idea that intergroup bias may be linked to peer relationship difficulties (Powlisha, 1995) because youth with higher negative attitudes toward the other gender grouping may be perceived as immature and hostile. Our finding confirms such a view because youth with higher levels of

intergroup bias are less attractive as a friend to their peer group. In contrast, this pattern indicates that greater openness to the other gender may be adaptive in terms of allowing for greater opportunities to form friendships among youth during middle school, when adolescents' social, emotional, cognitive, and physical attributes change and their potential pool of friends increases compared with elementary school. It is interesting, however, that this feature of network selection did not continue to be of importance in older middle schoolers.

Turning to association between within-gender self-concepts and friendships network selection, we expected positive associations between gender typicality and contentedness with the number of friendship nominations sent and received because these aspects of GI have been linked to greater peer acceptance and social skills. Our results provided partial support and showed that *gender contentedness* was also positively associated with the number of friendship nominations that seventh and eighth-grade students sent out suggesting a better social integration in peer networks. Although these findings are intriguing, the question of *how* adolescents evaluate and determine others' gender contentedness is an important direction for future research. Contrary to our expectations, we documented that gender typicality was negatively associated with the number of friendship ties that eighth graders sent out. It is plausible that having higher levels of perceived prototypicality with one's gender group might operate similar as intergroup bias in that it might also restrict the range of opportunities afforded to form friendships with peers who possess low forms of typicality (this pattern is supported in our models by a significant preference to select friends who have similar levels of gender typicality). For example, it could be that adolescents who view themselves as very typical of their gender group prefer to affiliate with others who also view themselves that way, thus potentially restricting the range of friendship formation options.

Our final exploratory goal was to examine whether the magnitude of peer influence differed between boys and girls. Our results do not reveal any gender differences. This finding is somewhat surprising given that other studies have suggested boys experience stronger peer pressures to conform to gender norms than do girls (Bussey & Bandura, 1992) and given that boys report higher levels of felt pressure from parents, teachers, peers, and self than do girls (Egan & Perry, 2001; Carver et al., 2003; Yunger et al., 2004). What is not clear from earlier studies that ask adolescents and older children to report on felt pressure is the *source* of felt pressure. That is, the felt pressure scale combines items about pressure from parents, peers, and self; therefore, it is unclear which of these sources is stronger for boys than girls. It may be that parents hold more strict expectations in terms of gender norm conformity for boys than for girls, or that boys hold themselves to stricter standards for conformity than do girls. Future research exploring gender differences and similarities in actual versus perceived peer pressures for conformity, and whether conformity pressures are explicit or implicit may provide additional insight into this finding.

Overall, our study adds to a growing body of research highlighting the impact that peers have on gender development. Previous research using the same approach to the study of social network influence on gender development illustrated that younger children became more similar to peers in their gender-typed behaviors over a few months time (Martin et al., 2013). The present study was the



first to explore peer effects on GI explicitly, and showed that peers influence one another on several dimensions of GI. The latter is an important addition to this body of work as behaviors may be relatively easily influenced among peers because they are overt (Martin et al., 2013); however, the present study shows that peers also exert influence even on less visible processes such as the development of one's representations of gender. Our research further illustrates the dialectic and social nature of how GI develops within the context of peer networks. Thus, we expand the current understanding of multiple socialization contexts of GI development (i.e., family, peers, mass media; Galambos, 2004; Leaper & Friedman, 2007).

### Limitations and Future Directions

Although the present study has numerous strengths including the use of longitudinal SNA and employing a large sample of ethnically diverse students, it also has limitations. One is that the data on friendship networks was constrained to each grade rather than to the whole school. This choice of network boundary was informed by prior research demonstrating that grade level is the relevant sampling frame for middle school students (Cairns, Xie, & Leung, 1998). Nonetheless, if children have broader networks spanning beyond the grade level, then we may have missed older or younger peers who also could be salient sources of influences on GI. Also, we did not attempt to gather information about adolescents' out-of-school networks in their neighborhoods, again potentially missing some potential sources of peer influence. Second, some might question our use of self-report measures; however, Egan and Perry (2001) have argued forcefully that GI must be self-reported as these are personal, internal summary judgments about one's view of self and others. Third, we modified the Egan and Perry's (2001) scale and complemented it with Sellers et al.'s (1998) measure of identity, which may have subtly altered how participants responded to them. However, we believe that it is unlikely that these subtle variations influenced how adolescents responded to these scales.

Future directions to pursue include exploring *how* and through which mechanisms (i.e., adherence to group norms or reinforcement) GI attitudes and feelings of pressure are transmitted (Brechtwald & Prinstein, 2011). Another line of related research could focus on identifying the role of individual differences in socio-evaluative concerns and rejection sensitivity (Downey, Lebolt, Rincón, & Freitas, 1998) as contributing factors to make some adolescents more or less susceptible to peer influence. Because between- and within-gender self-concepts are posited to be shaped by sociocognitive processes transpiring within own- and other-gender collectives (Pauletti et al., 2014), future work would be prudent to examine the role of proportion of same-gender friends in peer influence and network selection on GI dimensions. It would also be interesting to explore other methods assessing GI that might provide somewhat different findings during adolescence, such as separating own-gender and other-gender typicality. Furthermore, research on related aspects of GI, such as centrality or salience, may provide additional insights into how adolescents develop their identities and how they influence their peers during this developmental transition.

Future research would benefit from use of diverse methodologies and conceptualizations of peer relationships (Gifford-Smith &

Brownell, 2003) in identifying the mechanisms through which peers influence GI. The present study employed a longitudinal SNA approach to study peer influence to allow the modeling of peer effects of multiple friends of the focal individual while statistically controlling for how these friendships have been created and are being maintained. Assessing the influence of multiple friends has advantages of capturing peer group dynamics, however, if the close or best friends are the primary source of peer influence on GI, then dyadic, or actor-partner interdependence modeling may provide the appropriate analytical framework to study peer influence on GI (Kenny, Kashy, & Cook, 2006). Close friendships, as enduring and high quality reciprocated relationships (for reviews, see Bagwell & Schmidt, 2011; Berndt, 2002) also represent a rich social context in which identity evolves. Finally, using experimental paradigms would be beneficial in establishing causal mechanisms of peer influence. For instance, young children's choices of toys have been influenced by how peers respond to those choices in experimental studies (e.g., Langlois & Downs, 1980). Although it might be challenging to design studies that manipulate potential peer responses to adolescents' aspects of GI, it would be possible to develop scenarios in which adolescents indicate how they would respond to unfamiliar peers given different types of GI, similar to the study conducted by Jewell and Brown (2014).

### Conclusion

To the best of our knowledge, the present study is the first to assess how peers influenced changes in adolescents' GI. Using a large sample of ethnically diverse seventh and eighth graders, we found evidence that adolescents use gender typicality, contentedness, and gender when they select their friends. The evidence concerning selection based on GI dimensions was relatively limited, although gender selection played a large role in structuring adolescents' networks. Most interestingly, we provided strong evidence that friends' self-reported levels of felt pressure and their intergroup attitudes were influential in changing adolescents' GI, such that youth became similar to their friends in these beliefs over time. This research extends prior research on peer influence in adolescence by illustrating that attitudes about gender and internal pressures to conform to gender norms also have the potential to be transmitted among youth.

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# EXHIBIT G







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# Elevated rates of autism, other neurodevelopmental and psychiatric diagnoses, and autistic traits in transgender and gender-diverse individuals

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It is unclear whether transgender and gender-diverse individuals have elevated rates of autism diagnosis or traits related to autism compared to cisgender individuals in large non-clinic-based cohorts. To investigate this, we use five independently recruited cross-sectional datasets consisting of 641,860 individuals who completed information on gender, neurodevelopmental and psychiatric diagnoses including autism, and measures of traits related to autism (self-report measures of autistic traits, empathy, systemizing, and sensory sensitivity). Compared to cisgender individuals, transgender and gender-diverse individuals have, on average, higher rates of autism, other neurodevelopmental and psychiatric diagnoses. For both autistic and non-autistic individuals, transgender and gender-diverse individuals score, on average, higher on self-report measures of autistic traits, systemizing, and sensory sensitivity, and, on average, lower on self-report measures of empathy. The results may have clinical implications for improving access to mental health care and tailoring adequate support for transgender and gender-diverse individuals.

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Autism is a group of neurodevelopmental conditions characterized by early-emerging difficulties in social-communication, unusually repetitive behavior and narrow interests, and atypical sensory sensitivity<sup>1</sup>. Approximately 1–2% of the general population is estimated to be autistic based on large-scale prevalence and surveillance studies, although these numbers vary between countries, age at the time of assessment and other criteria<sup>2–8</sup>. Whilst several studies have investigated rates of autism in individuals who are birth-assigned as males and females, there still is limited information on rates of autism in transgender and gender-diverse individuals in the general population. Gender identity is a different construct from sex assigned at birth, which is typically classified as male or female primarily based on external genitalia. Some individuals are born with chromosomal, genital, or hormonal sex-characteristics which vary from the male–female binary (intersex individuals) and who may be assigned as or raised as males or females. Gender identity is a person's sense of their own gender, which may or may not coincide with sex assigned at birth. Following current recommended practice, we use the term “cisgender” to refer to individuals whose gender corresponds to their sex assigned at birth. However, there is a diversity of gender identities including transgender, non-binary, genderfluid, agender, genderqueer, two-spirit, bigender or others. Again, based on current recommended practice, we collectively refer to these and other diverse gender identities as “transgender and gender-diverse” (i.e., individuals whose gender does not always correspond to the sex they were assigned at birth). Currently, 0.4–1.3%<sup>9–11</sup> of the general population is estimated to be transgender and gender-diverse, although the numbers vary considerably based on how the terms are defined<sup>11</sup>.

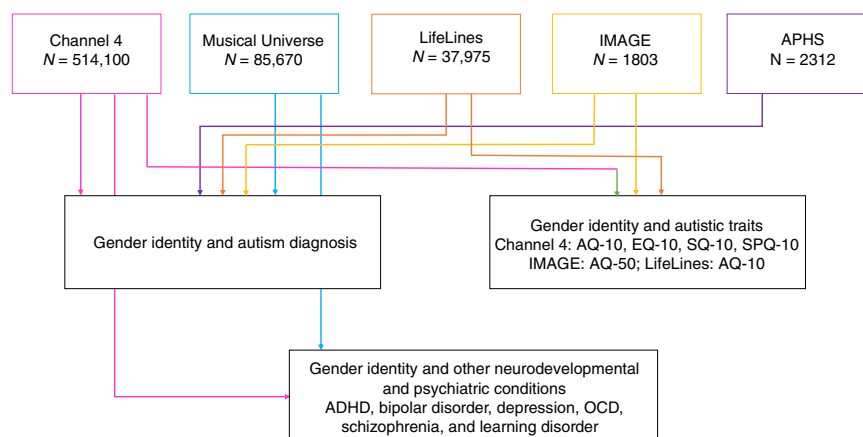
A few studies, mostly clinic-based, typically with small sample sizes, and in individuals with gender dysphoria (GD, defined as persistent distress arising from a mismatch between sex assigned at birth and gender identity), have investigated the link between autism/traits related to autism and gender diversity<sup>12,13</sup>. These studies have identified increased rates of gender diversity in autistic children and adolescents<sup>14–18</sup>, and adults<sup>19,20</sup>, compared to the general population. Most of these studies in children and adolescents have used a single item on the Child Behavior Checklist (CBCL), a caregiver-report measure for behavioral problems, to quantify gender variance, and these have identified that between 4% and 5.4% of autistic children may potentially be transgender or gender-diverse, compared to 0.7% of non-autistic children<sup>14–16</sup>. The largest of these, conducted in nearly 300,000 children, identified a fourfold likelihood of GD clinical diagnoses in autistic compared to non-autistic children (i.e., 0.07% of autistic children and 0.01% of non-autistic children)<sup>17</sup>. Despite the differences in percentages of transgender and gender-diverse identities in the studies using CBCL and clinical GD information, the relative rates are largely similar (between 5.7 and 7.7). A second set of studies has investigated rates of autism in both children and adolescents<sup>21–23</sup> and adults<sup>24,25</sup> with GD. These studies have identified that between 4.8% and 26% of individuals who present at GD clinics have an autism diagnosis based on several different criteria. The largest of these studies ( $N = 532$ <sup>24</sup>, and  $N = 540$ <sup>25</sup>) identified that 6.0% and 4.8% respectively of these individuals are autistic, based on review of clinical and medical records. Although none of these studies have used a matched control sample to investigate the relative rates of autism diagnoses, using a baseline population estimate of 1–2%<sup>2–8</sup> suggests that autism diagnoses are significantly elevated in individuals presenting at GD clinics. A third group of studies have identified elevated traits related to autism in individuals with gender diversity<sup>24,26–34</sup> compared to cisgender individuals. These studies have not investigated whether atypical sensory sensitivity (now

defined as a core feature of autism<sup>1</sup>) is elevated in transgender and gender-diverse individuals.

The existing literature is heterogeneous, conducted using different methods, across age ranges and nationalities. These studies demonstrate an increased occurrence of autism in gender-diverse individuals or individuals from GD clinics. However, almost all studies were conducted using modest sample sizes (a typical sample size is in a few hundreds). Whilst these have the advantage of carefully characterizing gender identity, they may not correctly estimate the effect sizes as the Odds Ratios (ORs) may be biased away from zero<sup>35,36</sup>. Larger samples would minimize the bias, but a bias will likely exist in most samples. Additionally, most studies have focused on individuals from GD clinics. However, not all transgender and gender-diverse individuals have GD, and the rates of autism in GD individuals may be different from rates of autism in transgender and gender-diverse individuals. It is also likely that young people attending GD clinics represent young people with the most intense gender dysphoria, such that it warrants a referral for clinical care, and/or those young people who can access this care (e.g., with parents who are more tolerant of difference, or who have greater resources, etc.). Therefore, it is important to understand what the odds are of being diagnosed as autistic in transgender and gender-diverse individuals at large, not solely in those recruited through GD clinics.

In parallel, studies have also investigated the rates of mental health conditions and mental distress in transgender and gender-diverse individuals, including individuals with GD (e.g., references<sup>37–44</sup>). The literature is heterogeneous with varying research methodologies and sample sizes<sup>45</sup>. Two recent reviews identify higher rates of mental health conditions and mental distress (notably depression, anxiety, and substance use disorders) in transgender and gender-diverse individuals compared to cisgender individuals<sup>40,45</sup>. Most of this research has focused on depression, substance misuse, and anxiety, with limited research on neurodevelopmental and other psychiatric conditions. It is unclear how the elevated rates of autism diagnosis in transgender and gender-diverse individuals compare to other neurodevelopmental and psychiatric conditions. To our knowledge, barring one study<sup>16</sup>, none of the existing studies of autism and gender identity have compared the rates of other related neurodevelopmental and psychiatric conditions in transgender and gender-diverse individuals versus cisgender individuals, making it difficult to estimate if the observed effects are specific to autism.

The availability of large datasets to investigate the link between autism and gender identity is currently limited to internet-based surveys. As far as we are aware, there is no large-scale national or regional registry with information available on both gender identity<sup>40</sup> (not limited to individuals with gender dysphoria) and autism diagnosis. We address these issues using four large-scale cross-sectional, internet-based datasets, and one longitudinal dataset, all sampled using a convenience framework. Using these five datasets, we investigate if transgender and gender-diverse individuals, compared to cisgender individuals, have: (1) elevated rates of autism diagnosis; (2) elevated autistic traits, systemizing traits, sensory hypersensitivity traits, and reduced empathy traits, all related to autism; and (3) elevated rates of any of six neurodevelopmental and psychiatric conditions that commonly co-occur with autism (attention-deficit/hyperactivity disorder (ADHD), major depressive disorder (depression), bipolar disorder, obsessive-compulsive disorder (OCD), learning disorder (also known as specific learning disorder), and schizophrenia)<sup>46,47</sup> (Fig. 1). Finally, whilst the previous literature has provided compelling evidence that autism is under-diagnosed (or mis-diagnosed as other conditions) in cisgender females, it is unclear if this is true of transgender and gender-diverse individuals<sup>48–50</sup>. So, as an



**Fig. 1 Schematic diagram of the study.** This figure provides a schematic overview of the study. In this study we investigated three questions, presented in the red boxes. For each question, the primary dataset was the Channel 4 dataset (pink box). We used four validation datasets to validate the results—Musical Universe (cyan box), LifeLines (orange box), IMAGE (yellow box), and APHS (purple box). Colored arrows from the dataset boxes to the questions indicate which questions were investigated in which datasets. AQ-10 (Autism Spectrum Quotient-10), SQ-10 (Systemizing Quotient-10), EQ-10 (Empathy Quotient-10), SPQ-10 (Sensory Perception Quotient-10), AQ-50 (Autism Spectrum Quotient-50), ADHD (Attention-Deficit/Hyperactivity Disorder), OCD (Obsessive-Compulsive Disorder).

exploratory analysis, we investigate whether transgender and gender-diverse individuals are more likely to suspect that they have undiagnosed autism compared to cisgender individuals.

## Results

**Rates of autism diagnosis.** We first investigated whether rates of autism diagnosis differed by gender in the C4 dataset. A  $\chi^2$  test identified a significant difference in autism diagnosis based on gender ( $\chi^2(2) = 3316$ ,  $p = 0.08$ ,  $p \text{ value} < 2 \times 10^{-16}$ ). Transgender and gender-diverse individuals had higher rates of autism diagnosis compared to cisgender males (OR = 4.21, 95% CI = 3.85–4.60,  $p \text{ value} < 2 \times 10^{-16}$ ), cisgender females (OR = 6.80, 95% CI = 6.22–7.42,  $p \text{ value} < 2 \times 10^{-16}$ ), and cisgender individuals altogether (i.e., cisgender males and cisgender females combined) (OR = 5.53, 95% CI = 5.06–6.04,  $p \text{ value} < 2 \times 10^{-16}$ ) (Fig. 2). After accounting for age and educational attainment, transgender and gender-diverse individuals had higher rates of autism diagnosis compared to cisgender males (OR = 3.88, 95% CI = 3.54–4.25,  $p \text{ value} < 2 \times 10^{-16}$ ), cisgender females (OR = 5.31, 95% CI = 4.85–5.82,  $p \text{ value} < 2 \times 10^{-16}$ ), and cisgender individuals altogether (OR = 4.59, 95% CI = 4.20–5.03,  $p \text{ value} < 2 \times 10^{-16}$ ) (Fig. 2).

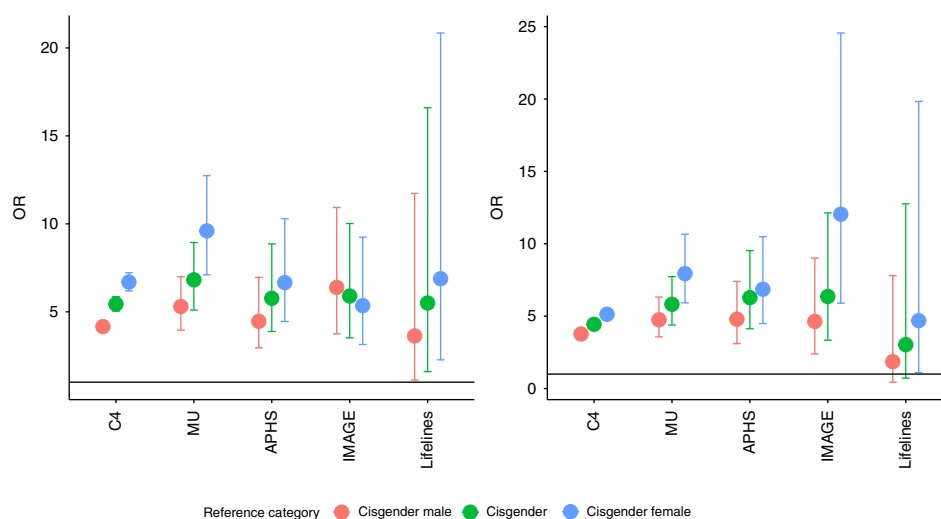
Given the limitations of the C4 dataset, we investigated this hypothesis in four other independently recruited datasets: MU, IMAGE, APHS, and LifeLines (“Methods”).  $\chi^2$  tests identified significant gender-based differences in autism diagnosis rates ( $p \text{ value} < 1 \times 10^{-5}$  in all datasets). Transgender and gender-diverse individuals had higher rates of autism diagnosis compared to cisgender males (MU: OR = 5.5, 95% CI = 4.10–7.28,  $p \text{ value} < 2 \times 10^{-16}$ ; IMAGE: OR = 6.36, 95% CI = 3.75–10.93,  $p \text{ value} = 6.32 \times 10^{-14}$ ; APHS: OR = 4.46, 95% CI = 2.95–6.96,  $p \text{ value} = 3.6 \times 10^{-13}$ ; LifeLines: OR = 3.63, 95% CI = 1.12–11.73,  $p \text{ value} = 0.02$ ), cisgender females (MU: OR = 9.92, 95% CI = 7.32–13.20,  $p \text{ value} < 2 \times 10^{-16}$ ; IMAGE: OR = 5.35, 95% CI = 3.14–9.24,  $p \text{ value} = 5.23 \times 10^{-11}$ ; APHS: OR = 6.66, 95% CI = 4.45–10.29,  $p \text{ value} < 2 \times 10^{-16}$ ; LifeLines: OR = 6.88, 95% CI = 2.27–20.85,  $p \text{ value} = 1 \times 10^{-4}$ ), and cisgender individuals altogether (MU: OR = 7.08, 95% CI = 5.28–9.30,  $p \text{ value} < 2 \times 10^{-16}$ ; IMAGE: OR = 5.90, 95% CI = 3.52–10.02,  $p \text{ value} = 1.80 \times 10^{-13}$ ; APHS: OR = 5.77, 95% CI = 3.88–8.86,  $p \text{ value} < 2 \times 10^{-16}$ ; LifeLines: OR = 5.50, 95% CI = 1.60–16.60,  $p \text{ value} = 0.002$ ). These results were statistically

significant after accounting for age and educational attainment in three of the four cohorts (transgender and gender-diverse vs. cisgender: MU: OR = 6.07, 95% CI = 4.56–8.08,  $p \text{ value} < 2 \times 10^{-16}$ ; IMAGE: OR = 6.36, 95% CI = 3.34–12.13,  $p \text{ value} = 1.08 \times 10^{-9}$ ; APHS: OR = 6.28, 95% CI = 4.13–9.53,  $p \text{ value} < 2 \times 10^{-16}$ ). In addition, we identified concordant effect direction in the LifeLines cohort (LifeLines: OR = 3.03, 95% CI = 0.72–12.76,  $p \text{ value} = 0.13$ ), though this was not statistically significant due to the low statistical power (Supplementary Note). Supplementary Table S3 provides the results for all three genders.

Additional sensitivity analysis in the MU dataset conducted by separating the cisgender group into cisgender males and cisgender females and the transgender and gender-diverse group into “transgender” and “other” indicated that both the non-cisgender groups had higher rates of autism diagnosis compared to both cisgender males and cisgender females (Supplementary Table S4).

Given that we did not collect information on sex and gender separately in the MU and the C4 datasets, we further investigated if the adjusted ORs (transgender and gender-diverse vs. cisgender) were significantly different for the APHS, IMAGE, and LifeLines datasets when compared to the MU and the C4 datasets. We used a subsampling bootstrap approach (10,000 subsamples) to test this and calculated empirical  $p$ -values (“Methods”). Empirical  $p$  values suggested that the ORs for the APHS ( $p \text{ value} = 0.078$ ), IMAGE ( $p \text{ value} = 0.11$ ), and LifeLines ( $p \text{ value} = 0.84$ ) datasets were not statistically different from the ORs observed in the 10,000 samples generated from the C4 dataset. Similarly, empirical  $p$  values for the APHS ( $p \text{ value} = 0.56$ ), IMAGE ( $p \text{ value} = 0.44$ ), and LifeLines ( $p \text{ value} = 0.85$ ) datasets suggested that the ORs were not statistically different from that observed in the 10,000 permuted samples generated from the MU dataset.

We also investigated if rates of transgender and gender diversity are higher in individuals diagnosed with autism using a logistic regression framework after accounting for age and educational attainment. We identified significant associations in four of the five dataset (C4: OR = 4.66, 95% CI = 4.26–5.10,  $p \text{ value} < 2 \times 10^{-16}$ ; MU: OR = 6.05, 95% CI = 4.55–8.05,  $p \text{ value} < 2 \times 10^{-16}$ ; IMAGE: OR = 6.35, 95% CI = 3.32–12.11,  $p \text{ value} = 2.1 \times 10^{-8}$ ; APHS: OR = 6.31, 95% CI = 4.14–9.62,  $p \text{ value} < 2 \times 10^{-16}$ ) and a



**Fig. 2 ORs and 95% CIs for autism in transgender and gender-diverse individuals compared to cisgender males, cisgender females, and cisgender individuals altogether.** **a** This figure provides the unadjusted Odds Ratios (ORs, point) and 95% CIs for autism in transgender and gender-diverse individuals compared to either cisgender males, cisgender females, or cisgender (cisgender males and cisgender females) individuals in five datasets (C4:  $N = 514,100$ ; MU:  $N = 85,670$ ; APHS:  $N = 2312$ ; IMAGE:  $N = 1803$ ; and Lifelines:  $N = 37,975$ ). **b** This figure provides adjusted ORs (point) and 95% CIs for autism in transgender and gender-diverse individuals compared to cisgender males, cisgender females, or all cisgender individuals in five datasets (C4:  $N = 514,100$ ; MU:  $N = 85,670$ ; APHS:  $N = 2312$ ; IMAGE:  $N = 1803$ ; and Lifelines:  $N = 37,975$ ). ORs have been adjusted for age, educational attainment, and in the case of IMAGE dataset, an additional dummy variable for study (see “Supplementary Methods”). The y-axis is on the same scale for both the panels. The differences in ORs for the IMAGE dataset between Models 1 and 2 is primarily due to the inclusion of “study” group as a covariate. Specifically, the IMAGE dataset consists of individuals recruited into a study of mathematics and autism (“Methods”). Whilst the mathematics group is predominantly male and have higher educational attainment (all have at least an undergraduate degree), the case-control group had a more balanced ratio and a wider range of educational attainment. Covarying for the study the participants have been recruited into (mathematics or autism case-control) changes the ORs.

concordant effect direction in the LifeLines dataset (OR = 2.91, 95% CI = 0.69–12.20,  $p$  value = 0.14).

**Traits related to autism.** As seen in cisgender individuals<sup>51</sup>, autistic transgender and gender-diverse individuals scored higher on the AQ-10, SQ-10, and SPQ-10, and lower on the EQ-10 compared to non-autistic transgender and gender-diverse individuals (Cohen’s  $D$ : 0.54–0.72,  $p$ -value <  $2 \times 10^{-16}$ , Supplementary Tables S5 and S6).

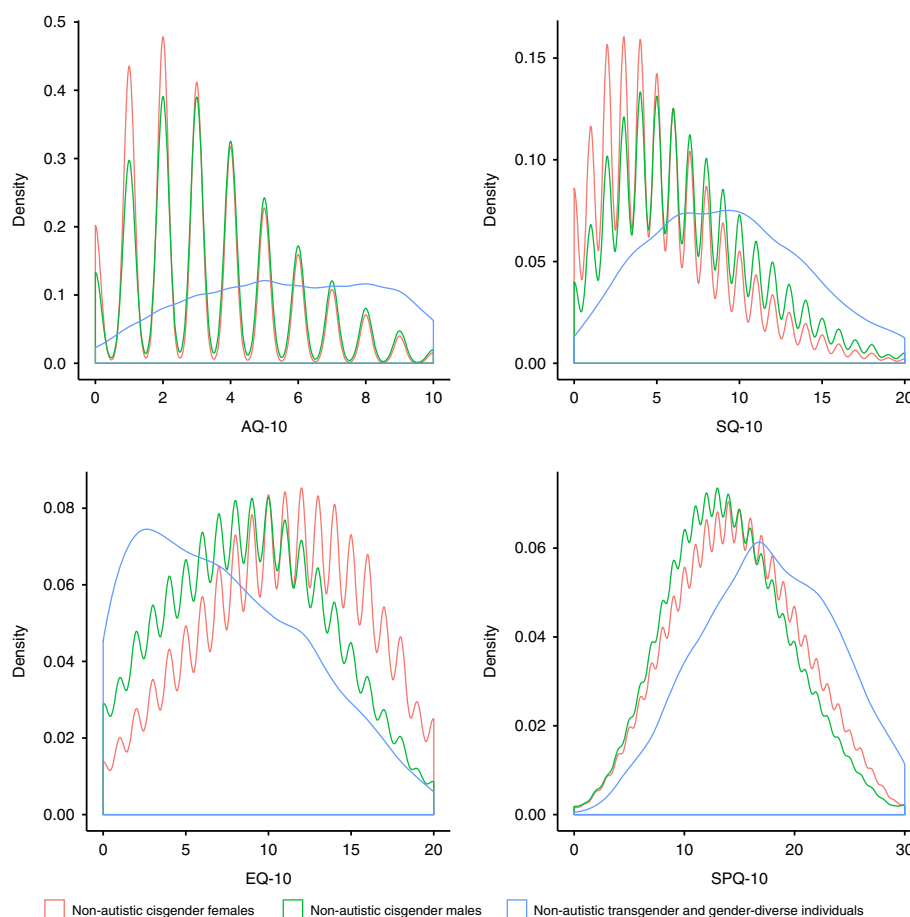
We next investigated gender differences in scores on the AQ-10, SQ-10, EQ-10, and SPQ-10 in autistic and non-autistic individuals separately in the C4 dataset. In both autistic and non-autistic individuals separately, ANOVA identified significant differences based on gender on all four measures ( $p$  value <  $2 \times 10^{-16}$  in all comparisons). Post-hoc  $t$ -tests indicated significant differences between groups across all measures: transgender and gender-diverse individuals scored higher on the AQ-10, SQ-10, and SPQ-10, and lower on the EQ-10 compared to both cisgender males and cisgender females. The effect sizes for differences in scores were larger for the cisgender male vs. transgender and gender-diverse as well as cisgender female vs. transgender and gender-diverse tests compared to the cisgender male vs. cisgender female tests across all four measures in both non-autistic and autistic individuals (Supplementary Tables S5 and S6).

For both cisgender male vs. transgender and gender-diverse as well as cisgender female vs. transgender and gender-diverse comparisons, effect sizes were larger in autistic individuals (Cohen’s  $D$ : 0.55–1.05) compared to the same analyses in non-autistic individuals (Cohen’s  $D$ : 0.32–0.96). This contrasts with cisgender male vs. cisgender female gender differences for these measures, which are attenuated in autistic individuals compared to non-autistic individuals (Supplementary Tables S5 and S6 and Fig. 3).

We repeated the analyses after accounting for autism diagnosis, age, and educational attainment. Transgender and gender-diverse individuals scored higher ( $p$  value <  $2 \times 10^{-16}$  for all) than both cisgender males and cisgender females on the AQ-10 (cisgender males: Beta =  $0.89 \pm 0.02$ , cisgender females: Beta =  $1.05 \pm 0.02$ ), the SQ-10 (cisgender males: Beta =  $0.66 \pm 0.02$ , cisgender females: Beta =  $0.99 \pm 0.02$ ), and the SPQ-10 (cisgender males: Beta =  $0.66 \pm 0.02$ , cisgender females: Beta =  $0.55 \pm 0.02$ ), and lower on the EQ-10 (cisgender males: Beta =  $-0.33 \pm 0.02$ , cisgender females: Beta =  $-0.70 \pm 0.02$ ) (Fig. 3 and Supplementary Fig. S1). We replicated this in two datasets: the IMAGE dataset using the AQ-50 and the LifeLines dataset using the AQ-10. In the IMAGE dataset, transgender and gender-diverse individuals scored higher than both cisgender males (Beta =  $0.45 \pm 0.11$ ,  $p$  value =  $3.09 \times 10^{-5}$ ) and cisgender females ( $0.52 \pm 0.11$ ,  $p$  value <  $1.80 \times 10^{-6}$ ). In the LifeLines dataset, transgender and gender-diverse individuals scored higher than cisgender females (Beta =  $1.23 \pm 0.25$ ,  $p$  value =  $1.4 \times 10^{-6}$ ) and nominally higher than cisgender males (Beta =  $0.51 \pm 0.25$ ,  $p$  value = 0.045).

The previous analyses investigated the association between gender identity and traits related to autism individually. We next investigated if there are differences in the standardized discrepancy between the EQ-10 and the SQ-10 in the three gender categories using “Brain Types”. Compared to both non-autistic cisgender males and non-autistic cisgender females, non-autistic transgender and gender-diverse individuals were significantly more likely to be classified as Type S (cisgender males 40.23%, cisgender females 25.58%, transgender and gender-diverse 53%) or Extreme Type S (cisgender males 4.14%, cisgender females 1.69%, transgender and gender-diverse 13.15%) ( $p$  value <  $2 \times 10^{-16}$ ). This was more pronounced in autistic transgender and gender-diverse individuals compared to autistic cisgender individuals (Extreme Type S: cisgender males 11.42%, cisgender females 7.55%, and transgender and gender-





**Fig. 3 Kernel density plot of scores on the four self-report measures in the C4 Dataset for non-autistic individuals only.** This figure provides kernel density plots for scores on the four self-report measures (AQ-10, EQ-10, SQ-10, and SPQ-10) for non-autistic participants from the C4 dataset ( $N = 514,100$ ) based on their gender (cisgender males, cisgender females, transgender and gender-diverse individuals). Scales on the axes are different between the panels. See Supplementary Fig. S1 which provides kernel density plots for all four measures for both autistic and non-autistic individuals. The non-autistic transgender and gender-diverse kernel density plots appear smoother due to the relatively low number of participants included, hence providing less resolution in the kernel density estimates when compared to the non-autistic cisgender males and non-autistic kernel density plots.

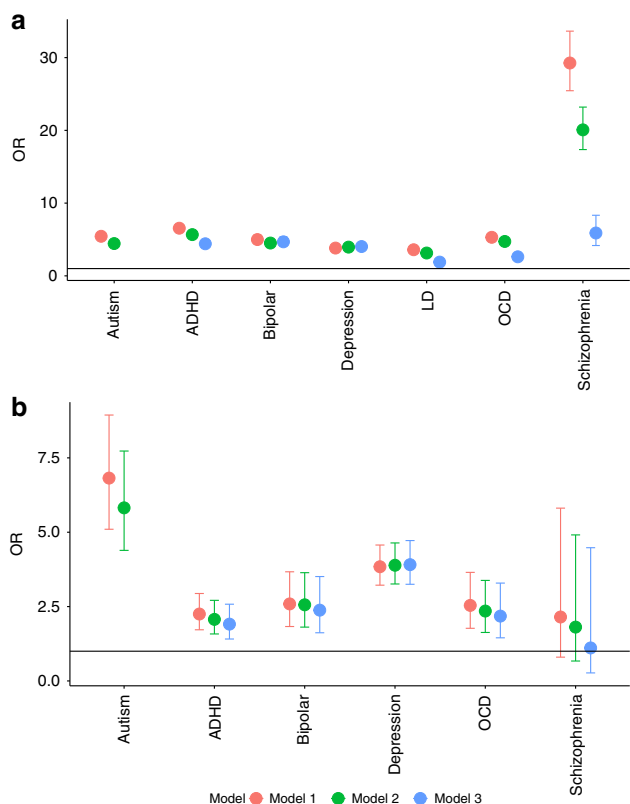
diverse 34.73%; Type S: cisgender males 50.97%, cisgender females 42.29%, transgender and gender-diverse 51.79%) ( $p$  value  $< 2 \times 10^{-16}$ ). (Supplementary Table S7 and Supplementary Fig. S2). Cumulatively, in autistic individuals, 86.52% of transgender and gender-diverse individuals were classified as Type S or Extreme Types S compared to 62.39% of cisgender males. In both autistic and non-autistic transgender and gender-diverse individuals, observed values were significantly shifted towards Type S and Extreme Type S compared to what is expected ( $p$  value  $< 2 \times 10^{-16}$ ).

#### Rates of other neurodevelopmental and psychiatric conditions.

We next investigated if rates of six other neurodevelopmental and psychiatric conditions (ADHD, bipolar disorder, depression, learning disorder, OCD, and schizophrenia) differed by gender in the C4 dataset. Compared to cisgender individuals, transgender and gender-diverse individuals had elevated rates of all these conditions, with the highest effect size for schizophrenia (OR = 28.52, 95% CI = 24.17–33.66,  $p$  value  $< 2 \times 10^{-16}$ ) and the lowest for learning disorders (OR = 3.48, 95% CI = 3.09–3.91,  $p$  value  $< 2 \times 10^{-16}$ ) (Supplementary Table S8). Including age and educational attainment as covariates (Model 2) attenuated the ORs only modestly (ORs: 3.08 (learning disorders) to 19.73 (schizophrenia)). However, the ORs were substantially attenuated when autistic individuals

were excluded, i.e., Model 3 (1.92 (learning disorders) to 6.39 (schizophrenia)) (Supplementary Table S8). Notably, there was a considerable attenuation in the OR for schizophrenia. The ORs for autism, ADHD, bipolar disorder and depression were similar to each other. In comparison, the ORs for OCD and LD were about half that for autism. Supplementary Table S9 provides results of the analyses repeated for the three genders (cisgender male, cisgender female, and transgender and gender-diverse).

We repeated the analyses for five of the six conditions tested above in the MU dataset. Compared to cisgender individuals, transgender and gender-diverse individuals reported higher rates of all five conditions (Model 1; OR: 2.15 (schizophrenia) to 3.83 (depression)), with the results for schizophrenia not being statistically significant, possibly due to small sample size (Fig. 4). These results were similar after accounting for educational attainment and age (Model 2; OR: 1.81 (schizophrenia) to 3.89 (depression)), and additionally, after excluding autistic individuals (Model 3 OR: 1.11 (schizophrenia) to 3.91 (depression)) (Supplementary Table S8). In contrast to the C4 dataset, in the MU dataset, the ORs for autism was the largest, followed by the two mood disorders (depression and bipolar disorder). Notably, the OR for depression was similar in both the C4 and the MU datasets. Supplementary Table S9 provides results of the analyses repeated for three genders (cisgender male, cisgender female, and transgender and gender-diverse).



**Fig. 4 ORs and 95% CIs for other neurodevelopmental and psychiatric conditions in transgender and gender-diverse individuals compared to cisgender individuals.** **a** This figure provides the Odds Ratios (ORs, point) and 95% CIs for diagnosis of autism and six other neurodevelopmental and psychiatric conditions in transgender and gender-diverse individuals compared to cisgender individuals in the C4 dataset ( $N = 514,100$ ). We did not employ Model 3 for autism as it was conducted after excluding autistic individuals in the dataset. ORs have been calculated using three models (see Methods). ADHD = Attention-Deficit/Hyperactivity Disorder; OCD = Obsessive-Compulsive Disorder; LD = Learning Disorder. **b** This figure provides the same, but for the MU dataset ( $N = 85,670$ ). Information on LD was not available in the MU dataset. The y-axis is on a different scale from the panel above.

To further clarify the role of autism compared to other neurodevelopmental and psychiatric conditions, we conducted multiple regressions to investigate the relative effects of association of autism on transgender and gender-diverse identities compared to other neurodevelopmental and psychiatric conditions. In the C4 dataset, depression had the highest OR ( $OR = 3.55$ ,  $95\%CI = 3.84\text{--}3.29$ ,  $p \text{ value} < 2 \times 10^{-16}$ ) followed by autism ( $OR = 3.43$ ,  $95\%CI = 3.79\text{--}3.11$ ,  $p \text{ value} < 2 \times 10^{-16}$ ). In the MU dataset, we obtained very similar ORs. Autism had the highest OR ( $OR = 3.94$ ,  $95\%CI = 5.61\text{--}2.77$ ,  $p \text{ value} < 2 \times 10^{-16}$ ) followed by depression ( $OR = 3.50$ ,  $95\%CI = 4.25\text{--}2.89$ ,  $p \text{ value} < 2 \times 10^{-16}$ ). ORs for other conditions are provided in the Supplementary Table S10.

**Exploratory analysis: rates of suspected autism.** In the IMAGE dataset, we also investigated if transgender and gender-diverse individuals were more likely to suspect they had undiagnosed autism compared to cisgender individuals. A  $\chi^2$  test identified a significant difference between genders ( $\chi^2(2) = 42.087$ ,  $p = 0.15$ ,  $p \text{ value} = 7.52 \times 10^{-10}$ ). Transgender and gender-diverse individuals were more likely to suspect they had undiagnosed autism compared to cisgender males ( $OR = 4.32$ ,  $95\%CI = 1.94\text{--}10.10$ ,

$p \text{ value} = 2.51 \times 10^{-4}$ ), cisgender females ( $OR = 7.99$ ,  $95\%CI = 3.54\text{--}18.92$ ,  $p \text{ value} = 3.13 \times 10^{-8}$ ), and cisgender male and female individuals altogether ( $OR = 5.47$ ,  $95\%CI = 2.47\text{--}12.72$ ,  $p \text{ value} = 9.01 \times 10^{-6}$ ).

## Discussion

In this study, we investigated three primary questions, and an additional exploratory question using five different, large-scale datasets. First, across all five datasets, transgender and gender-diverse individuals were 3.03 to 6.36 times as likely to be autistic than were cisgender individuals, after controlling for age and educational attainment. Second, transgender and gender-diverse individuals scored significantly higher on self-report measures of autistic traits, systemizing and sensory sensitivity and scored significantly lower on empathy traits compared to cisgender individuals. Third, in two datasets with available data, transgender and gender-diverse individuals had elevated rates of multiple other neurodevelopmental and psychiatric conditions. Finally, exploratory analysis identified that transgender and gender-diverse individuals were more likely to report that they suspected they had undiagnosed autism.

These associations between gender identity and autism diagnoses are unlikely to be false positives for multiple reasons. First, we observe consistent effect directions across multiple datasets with very different recruitment strategies, ascertainment biases, cultural backgrounds, and age ranges. The effects after accounting for age and educational attainment were statistically significant for four of the five datasets, and in the same direction for the fifth (i.e., LifeLines cohort). The lack of statistical significance is due to the low statistical power of the LifeLines dataset, because participants were older and healthier as individuals with severe mental health conditions were excluded at the time of recruitment, and individuals with higher genetic likelihood for mental health conditions are likely to drop out from longitudinal studies<sup>52,53</sup>. Second, comparing the ORs of the three smaller samples (IMAGE, APhS, and LifeLines) to bootstrapped ORs from 10,000 subsamples in the two largest samples (C4 and MU) did not identify statistically significant differences in ORs. This indicates that the ORs are similar regardless of different recruitment strategies and different methods used to ascertain gender and autism. Third, sensitivity analysis in the MU dataset did not identify differences in the rates of autism diagnosis between participants who indicated “Other” vs. “Transgender”. Fourth, the ORs observed in this study are similar to those observed in participants from GD clinics<sup>17</sup>, suggesting that ORs observed using an internet-based convenience sampling framework is similar to ORs observed in GD clinic-based samples.

Supporting the association between gender identity and autism diagnoses, transgender and gender-diverse individuals also had higher scores on self-report measures of autistic traits, sensory sensitivity, and systemizing, and lower scores on a self-report measure of empathy traits, compared to cisgender individuals. The transgender and gender-diverse vs. cisgender effect sizes are equivalent to or larger than the autism vs. non-autism effect sizes and the cisgender male vs. cisgender female effect sizes in non-autistic individuals. Importantly, these effects were also observed when investigating the discrepancy of scores on the EQ-10 and SQ-10 using the “Brain Types” analyses. In addition, in a relatively smaller sample (IMAGE), transgender and gender-diverse individuals were more likely to suspect they had undiagnosed autism. Taken together, our analyses indicate that transgender and gender-diverse individuals are more likely to be autistic compared to cisgender individuals, and further that undiagnosed autism may also be higher in transgender and gender-diverse individuals.

However, this association with gender identity is not specific to autism. In two datasets, transgender and gender-diverse individuals also had elevated rates of ADHD, bipolar disorder, depression, OCD, learning disorders, and schizophrenia compared to cisgender individuals. In one of the two datasets, we tested and confirmed that transgender and gender-diverse individuals had higher rates of learning disorders compared to cisgender individuals. In the C4 dataset, we identified elevated rates of schizophrenia in transgender and gender-diverse individuals compared to cisgender individuals but were unable to replicate this in the MU dataset.

Our multiple regression analyses helped clarify the relative association strengths of these conditions with transgender and gender-diverse individuals. In both the MU and the C4 datasets, autism and depression had the highest effect sizes. Notably, in the MU dataset, none of the other conditions were significantly elevated in transgender and gender-diverse individuals after controlling for autism and depression, which is discordant with the results identified in the C4 datasets. This discrepancy in the results may be due to differences in sample sizes, ascertainment, or other cohort characteristics. For instance, the C4 study directly recruited participants to an autism study. This may oversample individuals with other co-occurring mental health conditions. In contrast, the MU dataset is a convenience sample collected over many months. There is some evidence to suggest that individuals with elevated genetic liability for schizophrenia, ADHD, and depression may be less likely to participate in studies<sup>52,53</sup>, and, as a result, they may be underrepresented in the MU dataset. In addition, most of the participants in the C4 are from the UK, whilst most of the MU participants are from the US. Differences in diagnostic practices may also contribute to sampling differences. A more comprehensive investigation of the relative rates of neurodevelopmental and psychiatric conditions in transgender and gender-diverse individuals compared to cisgender individuals is warranted.

The elevated rates of autism and other conditions must be considered against other hypotheses that may explain the observed results due to the non-probabilistic nature of the sample. Specifically, for autism, one alternative hypothesis is that transgender and gender-diverse individuals may be more likely to report higher rates of autistic traits due to long-standing experiences and feelings of “not fitting in socially”, with true levels of autistic traits being comparable between cisgender and transgender and gender-diverse individuals. Although this is possible, other studies have reported elevated autistic traits measured using parent- or teacher-report instruments in individuals with GD<sup>31,33</sup>. Importantly, in our study, we note that the shift in scores in transgender and gender-diverse individuals is observed across both social (EQ-10) and non-social (SPQ-10 and SQ-10) measures of traits related to autism, which themselves are only partly correlated<sup>51,54,55</sup>. Notably, transgender and gender-diverse individuals also score higher on the SPQ-10, a measure of sensory sensitivity, and response to items on this measure are unlikely to be influenced by social gender norms.

Another alternative hypothesis is that autistic transgender and gender-diverse individuals may be more likely to participate in these studies compared to autistic cisgender individuals (i.e., selection bias). However, this is unlikely: the datasets were not collected to specifically investigate the links between gender and rates of autism diagnosis. Whilst autistic individuals may be more likely to participate in the autism-related studies (C4, APhS, and IMAGE), it is unlikely that this will be biased towards autistic transgender and gender-diverse compared to autistic cisgender individuals. In addition, two of the datasets (MU and LifeLines) were not collected specifically for an autism-based study. Further, the LifeLines also has a healthy volunteer bias, which is likely to

attenuate ORs. In other words, a strength of this study is that none of the datasets were collected to specifically test the association between autism and gender identity. Furthermore, similar ORs have been observed in a large-scale study of autism in participants of GD clinics which are unlikely to be affected by this specific type of selection bias<sup>17</sup>, providing further corroboration to our findings.

Whilst our study does not test causality, a few hypotheses may explain the over-representation of autism and other neurodevelopmental and psychiatric conditions in transgender and gender-diverse individuals. First, autistic individuals may conform less to societal norms compared to non-autistic individuals, which may partly explain why a greater number of autistic individuals identify outside the stereotypical gender binary. Second, prenatal mechanisms (e.g., sex steroid hormones) shaping brain development have been shown to contribute to both autism (and associated neurodevelopmental conditions) and gender role behavior<sup>56–60</sup>. It is unclear if prenatal sex steroid hormones also contribute to gender identity and this should be investigated in future studies. Neurodevelopmental conditions such as ADHD and learning disorders frequently co-occur with autism<sup>47</sup>, and genetic evidence suggests a shared underlying liability for many of the co-occurring neurodevelopmental and psychiatric conditions<sup>61,62</sup>. Finally, an alternative but not mutually exclusive explanation is that transgender and gender-diverse individuals have elevated vulnerabilities for multiple psychiatric challenges related to stressful life experiences in the contexts of unfriendly environments, discrimination, abuse and victimization, explaining the elevated rates of mental health diagnoses<sup>63,64</sup>.

These findings must be interpreted in light of the lived experiences, rights, and clinical and daily life needs of transgender and gender-diverse individuals. Both autistic individuals and transgender and gender-diverse individuals are marginalized groups where the currently available support and understanding is inadequate<sup>65</sup>. Both groups are also more likely than others to engage in self-harm, suicidal ideation and suicidal behaviors, and to have other vulnerabilities<sup>63,66–68</sup>. This intersection of autism and gender diversity can be doubly distressing if adequate safeguarding and support are not provided. A recent study demonstrated that a third of autistic individuals had their gender identity questioned because they were autistic<sup>65</sup>. There is a need to ensure that autistic transgender and gender-diverse individuals have the right to express their gender, live with dignity, and receive social and legal recognition of their gender<sup>69</sup> (also see: [https://autisticadvocacy.org/wp-content/uploads/2016/06/joint\\_statement\\_trans\\_autistic\\_GNC\\_people.pdf](https://autisticadvocacy.org/wp-content/uploads/2016/06/joint_statement_trans_autistic_GNC_people.pdf)). Additionally, recent studies demonstrate that autistic characteristics partly differ between cisgender males and cisgender females<sup>50,70,71</sup>. However, it is still unclear if autistic characteristics differ in transgender and gender-diverse individuals compared to cisgender individuals. This co-occurrence requires gender-informed and neurodiversity-informed clinical care for autistic transgender and gender-diverse individuals.

There are caveats to this study. First, in two of the datasets we excluded intersex individuals, but this was not an option in other datasets (C4, LifeLines and MU). Second, there is a possibility that some nonbinary, gender-neutral, or other gender-diverse individuals may not identify with the “transgender” term in the C4 dataset as we did not concurrently provide the “transgender” and “other” options. Third, some gender-aware individuals may respond by providing their sex rather than their gender. It is difficult to disentangle this. However, the magnitude of the sample size suggests that the effects of such misclassification will have a minimal effect on the analyses and findings. Supporting this, subsampling bootstrap analyses indicate that the ORs are similar across the different datasets. Additionally, the ORs are



similar between the five internet-based datasets in this study and a study based on GD-clinic based samples<sup>17</sup>. This similarity suggests that regardless of recruitment (internet-based vs. clinic-based) or ascertainment criteria (self-report gender identity vs. clinically ascertained gender dysphoria) or age (adults vs. children), the results converge on similar ORs. Fourth, individuals with severe mental health conditions and intellectual disability are less likely to participate. Finally, these datasets are not statistically well-powered to investigate rates of autism diagnosis in transgender and gender-diverse individuals after stratifying by sex assigned at birth; thus, we have not investigated this.

In conclusion, our study demonstrates that transgender and gender-diverse individuals have elevated rates of autism diagnosis, related neurodevelopmental and psychiatric conditions, and autistic traits compared to cisgender individuals. This study has clinical implications by highlighting that we need to improve access to care and tailored support for this under-served population.

## Methods

**Overview of the datasets.** We used five datasets for this study. The largest of these (Channel 4 dataset, C4) consists of  $N = 514,100$  individuals who completed online questionnaires as a part of a UK Channel 4 television program about autism. These participants self-reported their autism diagnosis, and indicated their gender based on three options “Male”, “Female”, and “Transgender”. To address autism-related self-selection bias in this dataset, we used a second dataset (Musical Universe, MU,  $N = 85,670$ ) recruited through a website for research about musical behavior, personality and cognition. Participants completed information about their autism diagnosis and selected their gender from four options: “Male”, “Female”, “Transgender” and “Other”. However, neither of these two datasets have separately recorded information on sex at birth and gender, and in both datasets, participants were asked to choose their “Sex”, although we acknowledge that the information collected is primarily of gender. To address this, we used two additional datasets where information was collected separately for sex at birth and gender. In the third dataset (APHS,  $N = 2312$ ), participants were recruited for an internet-based physical health survey. Participants completed information on their autism diagnosis including when they were diagnosed and who diagnosed them, their sex at birth, and their current gender identity. The fourth dataset (IMAGE,  $N = 1803$ ) consists of participants who were recruited for a genetic study of autism and mathematical ability. Participants completed information on their autism diagnosis, their sex at birth, and their gender. In addition, all autistic participants provided a copy of their diagnostic report to verify their diagnosis. The fifth and final dataset consists of a subset of participants from the Lifelines Cohort and Biobank<sup>72</sup> ( $N = 37,975$ ) who provided information on sex assigned at birth and gender, autism diagnosis, and completed a measure of autistic traits. This dataset consists of individuals who are considerably older than those in the other four datasets, and who were recruited primarily through GP clinics. None of the five datasets were recruited specifically to investigate the association between gender diversity and autism, which limits gender-based self-selection bias.

**Channel 4 dataset: overview.** The Channel 4 dataset (C4 dataset) comprises participants who completed self-report measures as a part of the Channel 4 documentary titled “Are you autistic?”, in Spring 2017<sup>51</sup>. A mobile-friendly website was developed and advertised on the Channel 4 TV website (<https://www.channel4.com/>). Participants indicated if their results could be used for research purposes. A total of 758,916 entries were recorded. Participants provided information on demographics (gender (see below for details), age, educational attainment, geographical region, handedness, occupation, autism and other neurodevelopmental or psychiatric diagnosis) and completed four self-report measures. Participants who consented to share their data for research were asked: “Have you taken this survey before? To make sure our data are as accurate and as useful as possible please tell us if you’ve taken this survey before.” If participants indicated that they had taken the survey before, they were marked as duplicates. After removing duplicates, we were left with a total of 695,166 participants. We were unable to use IP addresses to identify duplicates due to ethical constraints. We included participants aged 15 to 90 years, in line with previous research<sup>51</sup>. Participants were asked to indicate their “Sex” using one of four options: “Male”, “Female”, “Transgender” and “Prefer not to say”. Whilst “Sex” was asked in the survey, we recognize that the information provided here is of sex or gender, or both and we refer to this as gender throughout the manuscript. Whilst designing the survey we did not make a distinction between gender and sex as these terms are often used interchangeably in the general population. We further removed individuals who did not provide information on gender (“Prefer not to say”), resulting in  $N = 675,360$  individuals.

**Channel 4: ascertaining gender identity.** During data collection, information on gender was initially collected using four options listed above. However, towards the end of the data collection phase, the “Transgender” option was modified to “Other” to make it more inclusive. For this study, we restricted our analysis to only those participants from the first phase of data collection who could choose from “Male”, “Female”, “Transgender” and “Prefer not to say”, as this makes it clearer for interpreting the data. This resulted in 514,100 individuals whose gender was either “Male” ( $N = 193,398$ ), “Female” ( $N = 317,891$ ), or “Transgender” ( $N = 2811$  or 0.55%).

**Channel 4: ascertaining diagnosis of autism and other conditions.** 27,919 participants (5.4%) indicated they had an autism diagnosis (cisgender males = 13,317; cisgender females = 13,934; transgender and gender-diverse = 668). Diagnoses of autism and other psychiatric conditions were asked using the question: “Have you been formally diagnosed with any of the following (please click all that apply?)”. For other psychiatric conditions, participants could choose from ADHD, bipolar disorder, depression, learning disorder, schizophrenia, and OCD. The wording of the question should typically preclude (though not completely eliminate) self-diagnosed individuals. Participants indicated they had the following diagnoses: ADHD ( $N = 19,300$ ), bipolar disorder ( $N = 9025$ ), depression ( $N = 122,829$ ), learning disorder ( $N = 18,559$ ), OCD ( $N = 13,115$ ), and schizophrenia ( $N = 1321$ ). These were not mutually exclusive, as individuals could endorse several diagnoses. In addition, participants provided information on their educational attainment and age (Supplementary Tables S1 and S2).

**Channel 4: measures of traits related to autism.** All participants completed four short, self-report psychological trait measures: the Autism Spectrum Quotient-10 (AQ-10)<sup>73</sup>, a widely-used measure of autistic traits; the Empathy Quotient-10 (EQ-10)<sup>51</sup>, a measure of empathy traits; the Systemizing Quotient-10 (SQ-10)<sup>51</sup> (10 items from the Systemizing Quotient-Revised<sup>74</sup>, but referred to here as Systemizing Quotient-10), a measure of systemizing traits (the drive to analyze or build a system<sup>75</sup>); and the Sensory Perception Quotient-10 (SPQ-10)<sup>51</sup>, a measure of sensory sensitivity. Using the SQ-10 and the EQ-10 data, we calculated “Brain Types”<sup>51</sup>, which refer to an individual’s cognitive profile based on the discrepancy of their scores on empathy and systemizing traits. Individuals may be classified into one of five different “Brain Types” based on the standardized discrepancy between their systemizing and empathy scores<sup>51,76</sup>.

**Musical Universe dataset: overview of dataset.** The Musical Universe (MU) dataset consists of a total of 89,218 individuals who completed measures on musical behavior, personality, and cognition, in exchange for feedback about their scores at [www.musicaluniverse.org](http://www.musicaluniverse.org). We identified duplicates first using IP addresses, and then, among individuals with identical IP addresses, using demographic variables—gender (see below for further information about this), age, educational attainment, occupation, and diagnosis. A total of 85,670 unique records were identified. Participants ranged in age from 18 to 88 years old (Supplementary Table S1).

**Musical Universe: ascertaining gender identity.** Similar to C4, the MU data collection did not make a clear distinction between gender and sex. Participants were asked for their “Sex” where they could choose one of four options: “Male” (42,291 non-autistic and 666 autistic), “Female” (41,659 non-autistic and 365 autistic), “Transgender” (361), and “Other” (328) (Supplementary Table S1). However, we recognize that participants have actually provided information on their gender and we refer to this as gender throughout the manuscript. In the primary analyses, we combined participants who chose the “Transgender” and “Other” option into the transgender and gender-diverse group (634 non-autistic and 55 autistic individuals) and conducted further sensitivity analyses using only individuals who chose the “Transgender” option. We decided to combine the two groups as some individuals who are transgender and gender-diverse in the broad sense (i.e., their gender is different from their sex assigned at birth) may not identify as transgender and may interpret the term transgender more narrowly (i.e., their binary gender identity is opposite to the binary sex assigned at birth).

**Musical Universe: ascertaining diagnosis of autism and other conditions.** Participants were asked if they had a formal diagnosis of autism from a professional. This should typically preclude (though not completely eliminate) self-diagnosed autistic individuals from participating. A total of 1,086 participants indicated that they had an autism diagnosis (Supplementary Table S1). In addition, they were asked if they had a formal diagnosis of additional mental health conditions. A subset of participants ( $N = 54,127$ ) indicated if they had a formal diagnosis of: 1. ADHD ( $N = 3189$ , 5.89%); 2. Bipolar disorder ( $N = 1532$ , 2.83%); 3. Depression ( $N = 11,919$ , 22.02%); 4. OCD ( $N = 1419$ , 2.62%); and 5. Schizophrenia ( $N = 202$ , 0.37%).

**Autism Physical Health Survey: overview of dataset.** The Autism Physical Health Survey (APHS) dataset consists of 2312 individuals aged 16–90 years who were recruited via the Cambridge Autism Research Database (CARD), autism

charities and support groups, and social media as a part of a study investigating the association between autism and physical health conditions. The study employed an anonymous, online self-report survey via Qualtrics. Participants were asked questions regarding their demographics, lifestyle factors (including diet, exercise, sleep, and sexual/social history), personal medical history, and family medical history for all first-degree, biological relatives. As the study was anonymous (and we did not collect IP addresses), we excluded records that we determined were likely to be duplicates. We excluded all records that matched a previous record across 11 categories: whether or not they had an autism diagnosis, specific autism diagnosis, type of practitioner who diagnosed them, year of diagnosis, syndromic autism (if applicable), country of residence, sex assigned at birth, current gender identity, age, maternal age at birth, paternal age at birth, and educational attainment.

**Autism Physical Health Survey: ascertaining gender identity.** Participants were asked for their sex assigned at birth (“Male”, “Female”, “Other”) and for their current gender identity (“Female” ( $N = 1383$ ), “Male” ( $N = 766$ ), “Non-binary” ( $N = 109$ ), and “Other” ( $N = 20$ )). We removed participants who indicated “Other” for their sex assigned at birth ( $N = 1$ ), and who did not complete information on gender identity ( $N = 3$ ). Additionally, 33 individuals had discordant sex and gender information (7 individuals of male sex but female gender, and 26 individuals of female sex and male gender). As we did not provide a transgender option in the gender identity column, we classified these individuals as transgender. Thus, in total there were 162 individuals who were included in the transgender and gender-diverse group (Supplementary Table S1).

**Autism Physical Health Survey: ascertaining autism diagnosis.** Participants were asked to indicate if they had an autism diagnosis. Whilst we did not require participants to upload a copy of their diagnostic report, they had to provide further information about which type of clinician diagnosed them as autistic (general practitioner, neurologist, pediatrician, psychiatrist, psychologist or other (free text box)), what their specific diagnosis was, and when they were diagnosed. A total of 1082 individuals indicated that they had an autism diagnosis (Supplementary Table S1).

**The IMAGE study: overview of dataset.** The Investigating Mathematics and Autism using Genetics and Epigenetics (IMAGE) dataset consists of individuals recruited into a genetic study of autism and mathematical ability. This was done using two different research designs. The first targeted autistic and non-autistic individuals as a part of a case-control design ( $N_{\text{final}} = 292$ ) by advertising in research databases, autism-related magazines, and on social media. The second targeted individuals who studied or were studying mathematics or a related degree ( $N_{\text{final}} = 1803$ ) by advertising in universities, mathematics societies, in mathematics specific or alumni magazines, or on social media. Participants registered at a bespoke website and provided contact details, demographics, and completed various questionnaires. As participants provided both their names and their contact details, we used this information to remove duplicate records.

**The IMAGE study: ascertaining gender identity.** Participants were asked for their sex at birth (“Male”, “Female” or “Intersex”) and their gender (“Man” ( $N = 994$ ), “Woman” ( $N = 747$ ), “Transgender Man” ( $N = 7$ ), “Transgender Woman” ( $N = 3$ ), “Nonbinary” ( $N = 35$ ), “Gender Neutral” ( $N = 10$ ), “Other” ( $N = 7$ ), and “Prefer not to say” ( $N = 15$ )). We excluded individuals who chose “Intersex” ( $N = 2$ ) for their sex, and “Prefer not to say” ( $N = 15$ ) for their gender. Of the remaining, we combined individuals who chose “Man” and “Woman” as the cisgender group ( $N = 1741$ ), and the remaining into the transgender and gender-diverse group ( $N = 62$ ). Further details are provided in Supplementary Table S1.

**The IMAGE study: ascertaining autism diagnosis.** Participants were asked if they had a diagnosis of autism on the autism spectrum (e.g., autism, Asperger Syndrome). As a part of this, we indicated that diagnosis must have been made by a qualified professional (e.g., clinical psychologist or psychiatrist). Participants were also asked when they received an autism diagnosis and who diagnosed them. In addition, autistic individuals in this study were asked to provide a copy of their diagnostic report that we used to confirm their autism diagnosis. A total of 1082 individuals indicated that they had an autism diagnosis (Supplementary Table S1). A subset of participants ( $N = 1787$ ) provided information on educational attainment. 1417 participants indicated if they suspected they had undiagnosed autism (“Yes” or “No”). This was used to investigate if transgender and gender-diverse non-autistic individuals were more likely to suspect they had undiagnosed autism compared to non-autistic cisgender individuals.

**The IMAGE study: measures of traits related to autism.** All participants completed the AQ-50<sup>77</sup>.

**LifeLines: overview of dataset.** The LifeLines Cohort is a Netherlands-based population cohort study, recruited between 2006 and 2013<sup>72</sup>. Participants were invited through their general practitioners in three northern provinces in the

Netherlands (Freisland, Groningen, and Drenthe). Notably, participants were not invited if they had a severe mental health condition, which suggests that this dataset will be biased towards healthy participants. A total of 167,729 participants aged between 6 months and 93 years completed the baseline survey. The LifeLines dataset used in this study consists of 37,975 individuals from the cohort, who responded to an online questionnaire on autistic traits in summer 2019. All participants were at least 18 years of age. The participants in the LifeLines cohort were, on average, about twice as old as the participants in the C4 and the MU cohorts, and this may in part explain the relatively low number of transgender and gender-diverse individuals in this dataset. In addition, 37,574 participants provided information on their highest level of educational attainment (Supplementary Table S2).

**LifeLines: ascertaining gender identity.** Information on gender was collected using one question: “Please choose which description fits you best”. This was followed by five options: “At birth I was registered as female and I am female”, “At birth I was registered as male and I am male”, “At birth I was registered as female, but I am male”, “At birth I was registered as male, but I am female”, and “Different from the options above, namely...”. Participants who chose the final option were required to fill in a short box describing their gender identity. In total, there were 15,527 cisgender males, 22,375 cisgender females, 18 transwomen, 17 transmen and 18 individuals who chose the other option and identified with other gender identities (e.g., genderfluid). Thus, in total, there were 53 transgender and gender-diverse individuals (Supplementary Table S1).

**LifeLines: ascertaining autism diagnosis.** Autism diagnosis was ascertained using the question: “Do you have an autism diagnosis?” followed by “In what year was this diagnosed”. 439 individuals indicated that they had an autism diagnosis (252 cisgender males, 184 cisgender females, and 3 transgender and gender-diverse individuals) (Supplementary Table S1).

**LifeLines: measures of traits related to autism.** All participants also completed the AQ-10<sup>73</sup>, provided the age when they completed the AQ-10.

**Ethics.** The Human Biology Research Ethics Committee, University of Cambridge, provided ethical approval for the collection and use of data for both the APHS and the IMAGE cohorts. They also provided ethical approval to access de-identified data from the LifeLines cohort. The Psychology Research Ethics Committee of the University of Cambridge confirmed that formal ethical review was not needed for use of the C4 dataset since it was secondary use of deidentified and anonymized data. The same was confirmed for the MU dataset by the Ethical & Independent Review Services. Informed consent was obtained for all participants included in this study.

**Statistical analyses: rates of autism diagnosis.** In all five datasets, we investigated if rates of autism diagnosis significantly differed by gender by first conducting  $\chi^2$  tests (Model 1, unadjusted), and then by conducting logistic regressions adjusted for age and educational attainment as covariates (Model 2, adjusted). Both age and educational attainment were associated with autism diagnosis, with younger individuals more likely to receive an autism diagnosis<sup>78,79</sup>, and educational attainment typically negatively correlated with autism<sup>51</sup>. Further, these two variables were measured across all five datasets. In addition, for the IMAGE dataset, we included a dummy variable for the two studies participants were drawn from (mathematical ability and case-control) to account for potential confounding effects of recruitment.

Each model was conducted first by using three gender categories (transgender and gender-diverse, male, and female), and then by using two gender categories (transgender and gender-diverse and cisgender). Regression betas were converted to ORs. As an additional sensitivity analysis, only in the MU dataset, we repeated the analyses after dividing the cohort into four groups (“Male”, “Female”, “Transgender”, and “Other”), to investigate if these results differed by gender identity.

Additionally, we also investigated if rates of transgender and gender-diverse individuals vary by autism diagnosis. This was done by using a logistic regression comparing transgender and gender-diverse individuals to cisgender individuals (dependent variable). Autism diagnosis was the independent variable, and educational attainment and age were included as covariates.

Whilst information for this study from all five datasets were collected using internet-based surveys, there are differences between them. Of importance is that sex, gender, and autism diagnosis information were all collected differently in the five datasets. In the C4 and MU datasets, gender information was collected using a single question whereas in the IMAGE and APHS datasets, gender information was collected using two questions—one for sex assigned at birth and another for gender identified with. In the LifeLines dataset, gender information was collected using a single question, but this included options about sex assigned at birth alongside gender. Further, information on autism diagnosis was also collected differently with deeper information provided by participants in the IMAGE, LifeLines, and APHS datasets. There are other cohort-based differences as well. For example, the MU dataset was aggregated over a long period of time and primarily collected from

the US, whilst three datasets (C4, APHS, and IMAGE) were collected over a shorter period of time and primarily from the UK. The LifeLines dataset used here was a subset of a cohort study, where participants were invited through general practitioner clinics rather than via the internet. This was collected in the Netherlands and consists of older participants.

Given the heterogeneity in these datasets, we wanted to investigate if the ORs obtained across the five datasets are comparable. Two factors affect ORs: winner's curse which inflate ORs in smaller cohorts<sup>35,36</sup>, and lower precision, i.e., higher standard errors of ORs in smaller cohorts<sup>80</sup>. Thus, ORs are not directly comparable between the datasets. In order to make the ORs comparable, we generated sub-datasets of equivalent sample sizes to the three smaller datasets (IMAGE, APHS, and LifeLines) in the two larger datasets (C4 and MU). We used a subsampling bootstrap approach to compare ORs in the two larger datasets with ORs in the smaller datasets. We generated six sets of 10,000 random subsamples each from the C4 and the MU datasets. Each of the 10,000 subsamples was matched to the numbers of cisgender males, cisgender females and transgender and gender-diverse individuals in the IMAGE, APHS, and LifeLines datasets. Thus, we sampled 10,000 times from the C4 and MU datasets with each sample consisting of 766 cisgender males, 1383 cisgender females, and 162 transgender and gender-diverse individuals to match the APHS dataset. In addition, we also sampled 10,000 times from the C4 and MU datasets with each sample consisting of 994 cisgender males, 747 cisgender females, and 62 transgender and gender-diverse individuals to match the IMAGE dataset. Finally, we sampled 10,000 times from the C4 and MU datasets with each sample consisting of 15,527 cisgender males, 22,375 cisgender females, and 52 transgender and gender-diverse individuals to match the LifeLines dataset. In each sample, we calculated adjusted ORs using logistic regression. We then calculated the empirical *p* values for the adjusted ORs for the IMAGE, APHS, and LifeLines samples from the distribution of ORs generated in the 10,000 samples from MU and C4. We corrected for the six tests using Bonferroni correction (empirical *p* value  $\alpha = 0.008$ ).

**Statistical analyses: rates of other neurodevelopmental and psychiatric conditions.** In the C4 and MU datasets we investigated if diagnosis of six neurodevelopmental and psychiatric conditions differed by gender using  $\chi^2$  tests (Model 1) and logistic regression accounting for educational attainment and age (Model 2). Additionally, we repeated Model 2 after excluding autistic individuals (Model 3), as there may be an autism-based ascertainment bias in these cohorts. Each model was conducted first by using three gender categories (transgender and gender-diverse, cisgender male, and cisgender female), and then two categories (transgender and gender-diverse and cisgender).

We also investigated the relative association between each neurodevelopmental and psychiatric conditions to gender identity. Gender identity (transgender and gender-diverse versus cisgender) was the dependent variable. The independent variables were diagnosis of ADHD, autism, bipolar disorder, depression, learning disorder (only in C4 dataset), OCD, and schizophrenia. Age and educational attainment were included as covariates.

**Statistical analyses: traits related to autism.** In the C4 dataset, we investigated differences in scores by gender (cisgender males, cisgender females, and transgender and gender-diverse) on the four measures using ANOVA and then conducted post-hoc *T*-tests. We repeated the analyses using linear regression accounting for age and educational attainment. Distributions in "Brain Types" between the three genders were investigated using  $\chi^2$  tests. Validation using the AQ-50<sup>77</sup> was conducted in the IMAGE dataset, and using the AQ-10 was conducted in the LifeLines dataset.

**Statistical analyses: calculation of "Brain Types".** Calculation of "Brain Types" was only done in the C4 dataset. We first calculated the standardized scores of the SQ-10 and the EQ-10. This was done by subtracting the mean of the SQ-10 and the EQ-10 (means were calculated using only non-autistic individuals from the C4 dataset) from each individual's score and then dividing by the maximum possible score (20 for both the SQ-10 and the EQ-10). We next calculated a "D-score" by subtracting the standardized EQ-10 score from the SQ-10 score. We then divided individuals into five Brain Types based on D-score percentiles. The lowest 2.5th percentile was Extreme Type E and the highest 2.5th percentile was Extreme Type S. Those scoring between the 35th and 65th percentiles were classified as Type B. Participants who scored between the 2.5th and 35th percentiles were Type E, and Type S was defined by scoring between the 65th and 97.5th percentile.

**Statistical analyses: multiple testing correction.** Across all the datasets and the three aims and the exploratory aim, we conducted at least 182 different analyses. Given the size of the datasets used, the standard errors are low. We thus define a study-wide *p*-value of 0.0002 to correct for all the tests. Details of the tests conducted are provided in Supplementary Table S11.

**Statistical analyses: power calculations in the LifeLines dataset.** Given the relatively low number of transgender and gender-diverse individuals, we conducted power calculations to investigate if the LifeLines cohort had sufficient statistical power to identify effects. We used effect sizes obtained from the results of the C4 dataset as this was the largest dataset, and hence, likely to have effects that are least

affected by winner's curse ("Supplementary Methods"). Power calculations suggested that we were underpowered to detect effects at an alpha of 0.05 for calculating ORs using logistic regression, with power achieved between 0.62 (reference group: cisgender males)—0.69 (reference group: cisgender females). However, we proceeded with the analyses to identify if the effects observed were in the same direction as those observed in other datasets.

**Reporting summary.** Further information on research design is available in the Nature Research Reporting Summary linked to this article.

## Data availability

As participants did not consent for their data to be publicly shared, even anonymized, data will be made available to only potential collaborators with ethical approval after they submit a research proposal to the Autism Research Centre, University of Cambridge, UK for four of the datasets (C4, MU, IMAGE, and APHS). Data for LifeLines can be obtained by making an application to the LifeLines Biobank (<https://www.lifelines.nl/researcher>). A reporting summary for this Article is available as a Supplementary information file.

## Code availability

Scripts are provided at: <https://github.com/autism-research-centre/Atypical-gender-and-autism>. All analyses were conducted using R version 3.4.4 (2018-03-15).

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## Author contributions

V.W. conducted the analyses. V.W. and S.B.-C. designed the study. V.W., D.M.G., E.W., C.B., P.L.S. collected the data. V.W., D.M.G., E.W., C.B., P.L.S., M.-C.-L., C.L.A., and S.B.-C. interpreted the data, wrote, read, and edited the paper.

## Competing interests

The authors declare no competing interests.

## Additional information

**Supplementary information** is available for this paper at <https://doi.org/10.1038/s41467-020-17794-1>.

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# EXHIBIT H

# CITY JOURNAL

## EYE ON THE NEWS

# When the State Comes for Your Kids

Social workers, youth shelters, and the threat to parents' rights

Abigail Shrier

June 8, 2021

Ahmed is a Pakistani immigrant, a faithful Muslim, and until recently, a financial consultant to Seattle's high-tech sector. But when he reached me by phone in October 2020, he was just one more frightened father. Days earlier, he and his wife had checked their 16-year-old son into Seattle Children's Hospital for credible threats of suicide. Now, Ahmed was worried that the white coats who had gently admitted his son to their care would refuse to return him.

"They sent an email to us, you know, 'you should take your 'daughter' to the gender clinic,'" he told me.

At first, Ahmed (I have changed names in this essay to protect the identities of minor children) assumed there had been a mistake. He had dropped off a *son*, Syed, to the hospital, in a terrible state of distress. Now, the email he received from the mental health experts used a new name for that son and claimed he was Ahmed's daughter. "They were trying to create a customer for their gender clinic . . . and they seemed to absolutely want to push us in that direction," he said when I spoke to him again this May, recalling the horror of last October. "We had calls with counselors and therapists in the establishment, telling us how important it is for him to change his gender, because that's the only way he's going to be better out of this suicidal depressive state."

Syed had been a "straight-A student" and—according to his parents and the family's therapist—quite brilliant. He is also on the autism spectrum, a young man who neglects to make eye contact and must be given rules for how long to shake hands, shower, or brush his teeth. High school was a slog for him, as it often is for kids on the spectrum

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who find that the social demands of adolescence have risen beyond their capacity to meet them. “He tried to ask a few girls out. It didn’t work out and he got frustrated and angry, and that kind of thing. And so, those girl-boy things get kind of tough for autistic kids, those developmental issues. And that’s where puberty can be very, very hard with the hormones rushing and all this stuff.”

When lockdowns hit, the boy who was already struggling socially and befuddled by questions neurotypical teens take for granted (*How do I show a girl I like her? How do I make the other kids include me?*) began to spend all day and night on the Internet. “He’s an autistic kid, and so he kind of lost track of time. And he was staying up a lot. So he was staying up, just being on the Internet, Twitter, Tumblr, whatever. . . . And he was in his room, just, you know, sleeping one or two hours a day. And that can really be devastating. He was very confused. He was seeing things, visual hallucinations. And we didn’t know why.”

It is not definitively known why many neurodiverse adolescents identify as transgender, but more than one scientist has pointed out the high rates of coincidence. As several autism experts have explained to me, those on the spectrum tend to fixate, and when a contagious idea is introduced to them—such as the notion that they might be a “girl in a boy’s body”—they are particularly susceptible to it.

As child psychiatrist and expert in gender dysphoria Susan Bradley said to me: “The messages these kids pick up [from trans influencers] when they’re online is, ‘We’re the only people who understand you. Your people, your parents, don’t really understand you.’ And it may be the first time in their lives that anybody has said to them, ‘We understand you. We know you. You’re okay. You’re just like us.’ And it’s powerful.”

I asked Bradley if introducing gender ideology to kids who tend to fixate is like introducing cocaine to those susceptible to addiction. She agreed: “It has the same power to assuage all the alienation and grief and distress that these kids have been struggling with.”

Because of a Covid-19 policy, Ahmed could not stay at the hospital with his son back in October. Syed, in a sleep-deprived and confused state, furious at the parents who had admitted him, and in consultation with hospital staff and a social worker, decided that his problem was gender.

The age at which minors in the State of Washington can receive mental health and gender-affirming care without parental permission is 13. In other words, the emails Ahmed received from the hospital were effectively a courtesy; the hospital did not require Ahmed's permission to begin his son on a path to medical transition.

But unlike some other parents I would later speak with, Ahmed's cool head prevailed. Believing he might be walking into a trap, Ahmed reached out to both a lawyer and a psychiatrist friend he trusted. The psychiatrist gave him advice that he believes saved his son, saying, in Ahmed's words: "You have to be very, very careful, because if you come across as just even a little bit anti-trans or anything, they're going to call the Child Protective Services on you and take custody of your kid." The lawyer told Ahmed the same: "What you want to do is agree with them and take your kid home. When the gender counselors advise you to 'affirm,' go along with it. Just say 'Uh-huh, uh-huh, okay, let's take him home, and we'll go to the gender clinic.'"

Ahmed assured Seattle Children's Hospital that he would take his son to a gender clinic and commence his son's transition. Instead, he collected his son, quit his job, and moved his family of four out of Washington.

Was Ahmed's reaction extreme? When I first heard it, back in October 2020, I wondered whether he hadn't overreacted. But as a growing number of parents began contacting me with similar stories, and I delved into the state laws of Washington, Oregon, and California, I came to a different conclusion. Taken individually, no single law in any state completely strips parents' rights over the care and mental health treatment of their troubled minor teens. But pieced together, laws in California, Oregon, and Washington place troubled minor teens as young as 13 in the driver's seat when it comes to their own mental health care—including "gender affirming" care—and renders parents powerless to stop them.

Here, for instance, are the powers granted to a 13-year-old child by the state of Washington. Minors age 13 and up are entitled to admit themselves for **inpatient** and **outpatient** mental health treatment without parental consent. Health insurers **are forbidden** from disclosing to the insured parents' sensitive medical information of minor children—such as that regarding "gender dysphoria [and] gender affirming care." Minors aged 13 to 18 can withhold mental health records from parents for "**sensitive**" conditions, which **include** both "gender dysphoria" and "gender-affirming care." Insurers in Washington **must cover** a wide array of "gender-affirming treatments" from tracheal shaves to double mastectomies.

Put these together, and a seventh grader could be entitled to embark on “gender affirming care”—which may include anything from a provider using the child’s name and pronouns to the kid preparing to receive a course of hormones—without her parents’ permission, against her parents’ wishes, covered by her parents’ insurance, and with the parents kept in the dark by insurance companies and medical providers.

Lest you wonder whether there is some madcap elixir polluting the groundwater of Washington State alone, in 2015, Oregon [passed](#) a law permitting minors 15 and older to obtain puberty blockers, cross-sex hormones, and surgeries at taxpayers’ expense—all without parental consent. In 2018, California [passed](#) a similar bill for all children in foster care, age 12 and up. The California state senate is now considering an [amendment](#) to the Confidentiality of Medical Information Act that would bar health insurers from disclosing medical information to parents about their dependents, on pain of criminal liability.

One Washington mother I spoke with, Nicole, has a 16-year-old daughter who struggled with an eating disorder and other mental health problems after being molested by a peer in elementary school. Just before her 13th birthday, the daughter decided she was transgender. “She hated her body, that was truly a real thing,” Nicole told me. “So we wanted to find her help.” But Nicole wasn’t convinced that her daughter had gender dysphoria, since she’d never before shown any signs of discomfort with her biological sex. “She had already been through a whole counseling program with the eating disorder and none of this came up.”

Over the next few years, Nicole’s daughter’s mental health worsened, and she began self-harming. After her daughter attempted suicide in 2019, Nicole took her to the emergency room at Highline Hospital (now St. Anne Hospital) in Burien, Washington. Nicole explained to the social worker at the hospital that, though the daughter was insisting her problem was gender, she’d been beset by a variety of mental health struggles for many years. Nicole said that she and her husband were not convinced by the gender dysphoria self-diagnosis and did not “affirm” their daughter’s trans identity. “The social worker was very nice to us,” Nicole told me. “She didn’t show any indication that she was not believing what we were saying or anything like that.”

But a nurse attending Nicole’s daughter who had been through the same thing with his own daughter took pity on Nicole and her husband. When the social worker left the room, Nicole says, he warned them that she was on the way to “emancipate” their child.

Washington law does not allow a minor to petition for emancipation until age 16. But according to several parents I spoke with, under the guise of “advising transgender youth of their rights,” social workers will sometimes sprinkle that tidbit onto a 14-year-old, so she knows liberation is only two years away.

Nicole and her husband didn’t wait. They immediately took her home. That was probably a good thing. Her daughter had full rights to go to a shelter where, had she elected to, she could be “affirmed” and started on a path toward medical transition. And, as it turns out, once a troubled teen over the age of 13 elects to stay in a shelter in Washington, it can be fiendishly difficult to extract them. Instead, more than a year later, Nicole reports that her daughter is much better, as is their relationship. The daughter has dropped the idea that she is transgender and is tapering off of anti-depressants.

Julie’s troubled 14-year-old daughter never identified as transgender. But Julie’s account of her tussle with Washington social workers and youth shelters—the details of which are corroborated by two different police reports—sheds critical light on the state’s approach to at-risk teens aged 13 and up. Julie specifically asked to go on the record about her experience—that’s how angry she is about what happened to her. I’ve masked her last name only to protect her minor daughter, Kayla.

Kayla had long suffered severe mood swings, anxiety, and depression, stemming from childhood trauma at the hands of a father who sexually abused her. Though a no-contact court order has kept Julie’s ex-husband away from his daughter for several years, the girl’s depression began spiking in recent months, and she developed worrying signs of mental instability; according to Julie, Kayla’s current therapist has described these symptoms as “textbook borderline personality disorder.”

On March 17, 2021, Julie dropped her daughter off at church youth group. At around 8 PM, Julie received a call from the pastor that Kayla had threatened to kill herself by overdosing on pills. Kayla didn’t actually have any pills on her, according to the police report filed that day, but she had announced her intention to procure some. When Julie headed to the church, her daughter ran away. The pastor drove Kayla straight to the emergency room at Seattle Children’s Hospital, where she was admitted.

Because of the pandemic, Julie was not allowed into the hospital room with Kayla, but at some point during her daughter’s stay, Julie believes a social worker at the hospital suggested to Kayla that if she didn’t want to go home, she had the right to stay at a



youth shelter. After a night in the hospital, Kayla called her pastor and asked to be driven to the YouthCare [Hope Center](#), a shelter for the protection of kids, ages 12 to 17, experiencing homelessness, abuse, or extreme family conflict.

When the hospital called Julie to tell her that Kayla was asking to stay at a homeless shelter, Julie was horrified. “I said, ‘Well, that’s, that’s absurd. She has a home, she has a family who loves her. Clearly, you’re not sending CPS—we’ve done nothing wrong. She doesn’t need to go to shelter.’ And the [hospital staff member] said, ‘Well, she’s 14, so she gets to make that choice for herself.’”

The staff member was right that Kayla had a right to check herself in for inpatient treatment (though the worker was wrong that this particular YouthCare center qualified). Once Kayla got there, extracting her proved a nightmare.

Unless Kayla voluntarily exited the shelter, Julie could neither see her daughter nor take her home. And it is very clear that Julie’s daughter did *not* want to return home to mom. Among their several mother–daughter disagreements, Kayla was furious with her mother for the rules Julie had established for Internet use. There were boys with whom Kayla conducted online relationships, which Julie worried about; Julie feared that some of these friendships were with adult men posing online as teens. She had attempted to cut off Kayla’s ability to communicate with them.

According to Seattle police officer Nathan Bauer’s report, shelter social worker Micaela Leavell was aware that Julie did not want her daughter at the facility. But Leavell told the officer that she “felt it was better” if the girl remained at the shelter because the daughter “feels ‘unsafe’ at her mother’s house.” Officer Bauer noted that Leavell “could not elaborate on any specific concerns” that the girl mentioned other than she “stated she would harm herself if she were returned.” If Julie’s daughter had concrete reasons for “feeling unsafe” in her mother’s home, she seems never to have provided them to any of the bevy of mental health care or social workers who attended her.

Several times a day, for the next few days, Julie called the YouthCare shelter to speak with her daughter. Each time, she was told that her daughter did not want to speak with her. At this point, Julie operated under a cloud of belief that the social workers at the shelter had her daughter’s best interest at heart.

But Julie retained her daughter's cell phone. She saw the messages coming in and out, apparently sent by her daughter from a computer at the shelter. And she saw that her daughter had sent the following message to a youth pastor: "Hey! I'm pretty sure I found a lawyer that will help me to stay in the [shelter] program since my social worker/case manager highly suggested that I find one as soon as possible cause he is worried that my mom will try to pull me out."

Julie realized her daughter seemed to be working toward legal emancipation, with the help of a lawyer arranged by the shelter. Julie later learned that the shelter had found her daughter an attorney and was working to try and file a Child in Need of Services petition. This would have made the shelter Kayla's legal guardian, for all practical purposes.

Indeed, several parents of trans-identified teens told me that the social workers who had attended to their daughters during a mental health crisis or suicide attempt had begun coaching their daughters on "emancipation," under the guise of "advising them of their rights." Many of the social workers encouraged the idea in psychologically vulnerable teens—who likely welcomed the suggestion—that their parents' rules, decisions, and objections to the teens' behavior constituted "abuse," the parents said.

Officer Bauer's report, regarding the case of Julie and her daughter Kayla, tends to corroborate this. Kayla's case manager, Oscar, volunteered to the police that YouthCare staff "provides the children with information on resources and courses of action, like emancipation, when asked by clients." (I emailed Oscar to find out how much "asking" a teen needs to do before a social worker suggests emancipation, but I never received a response.) The published Washington State Department of Children, Youth & Families [guidance](#) informs children's administration staff that they are not permitted to disclose a child's LGBTQ+ identities to the parents; instructs them to use forms that "clearly distinguish the legal name and gender from chosen name and gender," presumably to prevent accidental slip-ups on the secret understanding they've established with a child to her parents; and requires them to refer a child or youth who wants to participate to "LGBTQ+ related services," including "behavioral health and medical providers that affirm their identity." Lest you think that "affirming" by a medical provider merely entails use of name and pronouns, the guidance defines "Gender Affirming" as "medical procedures that changes [*sic*] a person's body to conform to their gender identity."

In the end, it would take a team of eight officers to remove Julie's daughter forcibly from the shelter. By that time, Julie already had a plan for Kayla's treatment—in Arizona,

where Kayla now resides in an inpatient treatment center for suicidality and depression. But the first order of business was to extract her daughter from Washington.

If you're familiar with the traditional model of youth shelters, you might assume that they are filled with kids whose parents either didn't want them or subjected them to abuse. But as the definition of "abuse" has expanded to mean everything from physically harming a child to not "affirming" a child's newly proclaimed gender identity, youth shelters seem to have ballooned to house even children from stable, loving families who desperately want their children back.

In 2012, agencies responding to a [Williams Institute at UCLA Law survey](#) reported that about 40 percent of the homeless young people they served identified as LGBTQ. From this bare statistic, many infer that LGBTQ teens are being frequently kicked out of their homes by bigoted parents. Far from it.

I asked Alexa Goodenow, an outreach worker at the SafePlace for Youth crisis hotline, which connects at-risk youth with a network of Seattle shelters, what challenges LGBTQ+ youth face that lead them to a shelter. "I would say one of the most common things that we see is just that cultural disconnect between them and their support system," she said. "So, hypothetically speaking, maybe a young person who's now identifying as non-binary or coming out as maybe gay or lesbian and bisexual and maybe families aren't supportive of that. So we do see a lot of that because in the Seattle area, we get a lot of melting pot of backgrounds. So maybe the young person's views don't quite align with their at-home support."

Being a teenager is no picnic. But removing minor children from their parents' home didn't used to be a matter of a parent-child "cultural disconnect"—or the young person's views not "quite align[ing] with their at-home support." The point was to provide sanctuary for children who would otherwise suffer physical harm or psychological torment.

Today, a teenager can declare an LGBTQ identity that is unsupported in her home and claim that this lack of support puts her mental health at risk. "For our young people experiencing homelessness, over 90 percent of them cite family conflict as a cause of homelessness," said Suzanne Sullivan, Chief Advancement Officer at YouthCare, who confirmed for me that almost 30 percent of the young people at her shelter identify as LGBTQ+. "We see a lot of young people who have different sexual identities or gender

identities that are not supported at home. At YouthCare, we believe that every young person deserves to live their life to the fullest and that includes gender and sexual identity. We are affirming at all of our locations and we don't feel that it's acceptable not to be," she said. YouthCare houses adolescents and young adults ages 12 to 24.

For child services in states that regard "gender affirming care" as the only humane way to treat a troubled teen who's suddenly decided she's transgender, the power the state grants them to undermine and even remove parents who object to these treatments is alarming. I asked Sullivan if the teens who come to YouthCare are being abused at home. "There are a lot of individual young people, so each story is unique and each story is different. And there are all different forms of mistreatment and neglect and abandonment. In some cases, kids are kicked out. In some cases, they leave."

In a state that grants minors aged 13 and up control over their mental health treatment—in a society that increasingly defines "abuse" as any of a variety of limits a parent might place on the gender or sexual exploration of a minor—it is easy enough for a troubled teen to decide that parents are "bad for my mental health." A credible threat of suicide seems sufficient to earn a child an indefinite right to stay in a youth shelter, where she can hang out with other teens and free herself from meaningful supervision. (I spoke with one parent outside of Washington whose troubled 15-year-old was able to smoke marijuana and develop an alcohol problem at a youth shelter, according to a psychiatric evaluation I reviewed. In Julie's case, she told me that, while Kayla was at the YouthCare shelter, she was often able to skip Zoom school.)

After Sullivan refused to answer more questions over the phone, I emailed her for comment on the claim by parents that "once their teens choose to stay at one of the shelters, if they are over 13, they are hard to extract." Sullivan—who many times during our call invited me to email her with questions—wrote back to say that she had no comment.

It isn't hard to see why a rebellious teen struggling with mental health problems might not want to return home from a youth shelter, even to a loving family. Take Lambert House, a "safe place for lesbian, gay, bisexual, transgender, and questioning (LGBTQ) youth ages 11-22," according to its website. Activities include "Minecraft," "Poetry Slam / Art Share," "Saturday Night Lambert Live!" and "Boys Who Like Boys Group." That might seem like a fun set of social activities for college students. It's a little more troubling to consider that, based on a perusal of the activities calendar, many of the



events seem to facilitate socializing between 22-year-olds and adolescents as young as 11. I called Lambert House several times for clarification, but never received a call back.

I did, however, speak with Vernadette Broyles, president and founder of Child and Parental Rights Campaign. A Harvard-educated lawyer, Broyles represents parents in child custody, child protective services, and school cases.

I asked Broyles point-blank: Was she seeing the same the pattern I had noticed—namely, loving parents bringing a suicidal, trans-identified teen to the E.R., which ensnares her in a child services network that will not relinquish her? “Yes, that is one of the patterns,” she said. “We’re seeing national patterns. . . . One is the very deliberate and systemic erosion of parental rights.” Broyles believes that this erosion leaves girls, especially, “disproportionately vulnerable.”

According to the parents I’ve talked with, it’s hard to argue with that. One mother I spoke with had had Child Protective Services called on her by her *own therapist*, after she had explained in therapy why she had chosen not to “affirm” her young trans-identified teen daughter. In that instance, the mom said, the social worker accepted the mother’s explanation that this did not constitute abuse. She counts herself lucky.

What advice does Broyles give parents if Child Protective Services shows up at their door? “Without a warrant or court order, you do not talk to them. You do not let your child talk to them. You should absolutely not let them interview your child with or without you. You don’t let them into your home, you don’t let them into your car. You don’t let them into your hospital room if you’re there in the hospital, you don’t let them into the room with you if you’re in a doctor’s office. You don’t let them in without a warrant or a court order, regardless of what they say. Because once they’re in they will take whatever you say or your child says and potentially use it against you. And then the next thing you know, there’s a possibility that they go to a court, to a judge, *ex parte*, and get a court order to remove your child. That’s distinctly possible.”

**F**ollowing up on Ahmed’s family, I spoke with Syed’s therapist, an autism expert, to find out how he has been doing since moving with his parents and sister out of Washington. She confirmed what Syed’s father told me: Syed is no longer suicidal, nor does he believe he is transgender. As a 17-year-old autistic boy, he shows startlingly advanced intellectual development and in social realms, can seem quite childish: He’s

doing advanced work in philosophy, she tells me—and also remains fascinated by his sister's My Little Ponies.

That's more than okay with his mom and dad.

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# EXHIBIT I



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## 504.13-R Administrative Regulations Regarding Transgender and Students Nonconforming to Gender Role Stereotypes



### Transgender Procedures and Safeguards

The *Iowa Civil Rights Act* ([Iowa Code Section 216.9](#)) and Title IX protect transgender students from sex and/or gender discrimination and clearly delineate that protection from unfair practices and discriminatory acts in education, including gender identity.

These administrative regulations set forth the district's protocols that will be utilized to expeditiously address the needs of transgender students, gender-expansive students, nonbinary, gender nonconforming students, and students questioning their gender to ensure a safe, affirming, and healthy school environment where every student can learn effectively.

These administrative regulations apply to all school activities, school-provided transportation, and school-sponsored events regardless of where they occur.

### Establishment of Gender Supports

Communication with the student and/or parent/guardian is key. Schools should make a case-by-case determination about appropriate arrangements for transgender students regarding names/pronouns, restroom and locker facilities, overnight accommodations on school trips, and participation in activities. These arrangements should be based on the student's or family's wishes, be minimally burdensome, and be appropriate under the circumstances.

Any student in seventh grade or older will have priority of their support plan over their parent/guardian. All supports can be documented in a Gender Support Plan.



Any student, regardless of how they identify, may request to meet with a school administrator and/or school counselor to receive support from the school and implement a Gender Support Plan. When a student and/or parent/guardian contacts school staff about support at school, the school will hold a meeting with the student within 10 school days of being notified about the request for support. The student should agree with who is a part of the meeting, including whether their parent/guardian will participate.

The Gender Support Plan will be maintained in the student's temporary records, not the student's permanent records. The Linn-Mar Community School District is committed to supporting all transgender students, gender nonconforming students, and students who are questioning their gender. A Gender Support Plan is not required for a student to receive supports at school. In instances where there is not a Gender Support Plan, school administrators and/or school counselors shall work with the student to identify and coordinate support. Support available through a Gender Support Plan, or otherwise, can include steps appropriate to also support siblings and family members of transgender students, gender nonconforming students, and students who are questioning their gender. Supports being provided for transgender, gender nonconforming students, and students who are questioning their gender will be reviewed on an annual basis or sooner, as necessary.

### **Confidentiality**

All persons, including students, have a right to privacy which includes the right to keep one's transgender status private at school. Information about a student's transgender status, legal name, or gender assigned at birth may also constitute personally identifiable information contained in a student's education records under the Family Educational Rights and Privacy Act. Disclosing this information other than as allowed by law is not permitted. Conversations between students and school counselors are protected, confidential conversations under applicable counselor/student laws. The district shall ensure that all information relating to student gender identity contained in student education records will be kept confidential in accordance with applicable state, local, and federal privacy laws. The district shall not disclose information that may reveal a student's transgender status to others including but not limited to other students, parents, and school staff unless legally required to do so (such as national standardized testing, drivers permits, transcripts, etc.), or unless the student has authorized such disclosure.

Transgender and gender nonconforming students have the right to discuss and express their gender identity and expression openly and to decide when, with whom, and how much to share private information. The fact that a student chooses to disclose their transgender status to school staff or other students does not authorize them to share other medical information about the student. School staff should always check with the student first before contacting their parent/guardian. School staff should ask the student what name and pronouns they would like school officials to use in communications with their family. All students under 18 years of age, or those over 18 years of age who are claimed as

dependents by their parents/guardians for tax purposes, should be aware that a parent/guardian has the right to review their student's education records under FERPA.

### **Names and Pronouns**

Every student has the right to be addressed by a name and pronoun that corresponds to their gender identity. A court-ordered name or gender change is not required, and the student need not change official school records.

At the beginning of each semester, teachers may ask all students how they want to be addressed in class and in communications with their parent/guardian. Within 10 school days of receiving a request from a student, regardless of age, or a parent/guardian (with the student's consent), the district shall change a student's name and/or gender marker in student technology logins, email systems, student identification cards, non-legal documents such as diplomas and awards, yearbooks, and at events such as graduation. A student may make this request via their Gender Support Plan, if the student has requested one.

In situations wherein the district is required by law to use or to report a student's legal name and/or gender marker, such as for purposes of standardized testing, the building secretaries will keep a record of the student's legal names and this document will be kept in a locked file for their access only. When a student transitions from one school to another, the recording form will be shared from building secretary-to-building secretary. A student's Gender Support Plan will be shared either administrator-to-administrator or school counselor-to-school counselor; depending on the student's preference.

An intentional and/or persistent refusal by staff or students to respect a student's gender identity is a violation of school board policies [103.1 Anti-Bullying and Anti-Harassment](#), [104.1 Equal Educational Opportunity](#), and [104.3 Prohibition of Discrimination and/or Harassment based on Sex Per Title IX](#).

### **Restrooms and Locker Rooms**

With respect to restrooms, locker rooms, and/or changing facilities; students shall have access to facilities that correspond to their gender identity. Buildings may maintain separate restrooms, locker rooms, or changing facilities for male and female students provided they allow students to access them based on their gender identity. No student shall be required to use an all-gender or secure-access restroom, a nurse's restroom, a privacy partition/curtain, and/or an all-gender locker room because they are transgender, gender nonconforming, or questioning their gender. Access to restrooms and locker rooms for nonbinary students and students questioning their gender will be determined on a case-by-case basis while providing students with options that allow for them to feel safest and most included.

Regardless of gender identity, any student who is uncomfortable using a shared facility regardless of the reason shall, upon the student's and/or a parent/guardian request, be provided with a safe and non-stigmatizing alternative. This may include, for example,

addition of a privacy partition/curtain, provision to use a nearby private restroom/office, or a separate changing schedule.

### **Dress Code**

Within the constraints of the district's student dress code policy ([502.9 Student Appearance](#)), students may dress in accordance with their gender identity. School staff shall not enforce a dress code more strictly against transgender and gender nonconforming students than they do with other students.

### **Physical Education and Athletics**

All students shall be permitted to participate in physical education classes, intramural sports, clubs, and school events in a manner consistent with their gender identity. Students may enroll in physical education classes that correspond with their gender identity, correspond with their sex assigned at birth, or that are not gender-specific. As a member of the Iowa High School Athletic Association (IHSAA) and the Iowa Girls High School Athletic Union (IGHSAU), the district follows their policies and recommendations for transgender athletic participation.

### **Overnight Trips**

No student shall be denied the right to participate in an overnight fieldtrip because the student is transgender, gender nonconforming, or questioning their gender. Students shall be allowed to room with other students who share their gender identity or where they feel safest and most included. Accommodations on overnight trips for nonbinary students and students questioning their gender will be determined on a case-by-case basis with an emphasis on providing students with options that allow for them to feel safest and most included. No student should be forced to room by themselves because they are transgender, gender nonconforming, or questioning their gender.

Building administration shall work with the student to determine the accommodations that will be provided based on the particular circumstances of the trip and shall notify the student of such accommodations in advance. With the student's agreement, building administration may engage the staff member supervising the trip. Overnight accommodations shall be arranged and provided in a manner that respects the student's desired level of confidentiality. Building administration and/or staff shall not notify parents of other students regarding a trans or gender nonconforming student's housing accommodations.

Staff members should always work with a student, regardless of gender identity, to address concerns regarding inclusion or safety and develop a plan for participation that addresses the student's concerns.

### **Records**

The district and/or building shall maintain a mandatory, permanent student record that includes a student's legal name and legal gender. However, to the extent that the district and/or building is not legally required to use a student's legal name and gender on other

school records or documents, the district and/or building shall use the name and gender preferred by the student. The district and/or building will change a student's official record to reflect a change in legal name or gender upon receipt of documentation that such change has been made pursuant to a court order or through amendment of state or federally-issued identification (School IDs, for example, are not legal documents and should use the student's preferred name). In situations where school staff or administration are required by law to use or report a transgender student's legal name or gender, such as for purposes of standardized testing, building secretaries will keep a record of the student's legal names and this document will be kept in a locked file for their access only. When a student transitions from one school to another, the recording form will be shared from building secretary-to-building secretary. A student's Gender Support Plan will be shared either administrator-to-administrator or school counselor-to-school counselor; depending on the student's preference.

All written records related to student meetings concerning their gender identity and/or gender transition with any staff member will be kept in a temporary file that shall be maintained by the school counselor. The file will only be accessible to staff members that the student has authorized in advance to do so.

### **Discrimination and Harassment**

No student shall be denied equal access to education on the basis of their gender identity or gender expression. Allegations involving violations of these administrative regulations shall be reported in a manner consistent with all applicable board policies. Policies prohibiting harassment and discrimination on the basis of sex also include harassment based on gender identity and expression.

### **Media and Community Communications**

When communicating to the media or community about issues related to gender identity, the district and/or building shall have a single spokesperson to address the issue. Rather than directly commenting on the issue, all other school staff shall direct parents and/or the media to the designated spokesperson. Protecting the privacy of transgender and gender nonconforming students must be a top priority for the spokesperson, as well as for all staff, and all medical information shall be kept strictly confidential. Violating confidentiality of this information is a violation of district procedures and may be a violation of local, state, or federal privacy laws.

### **Definitions**

The following definitions are provided not for the purpose of labeling students, but rather to assist in understanding this policy and the legal obligations of school staff. Students may or may not use these terms to describe themselves.

**Affirming:** Acknowledging and supporting the identity of an individual.



Ally: A person who is not LGBTQ+ but shows support for LGBTQ+ people and promotes equality.

Cisgender/Cis: Used to describe one whose gender identity corresponds solely with their sex assigned at birth.

Gender Diversity: Refers to the wide range of gender identities, gender roles, and/or gender expressions that exist.

Gender Expression: The manner in which a person represents or expresses gender to others; often through behavior, clothing, hairstyles, activities, voice, or mannerisms.

Gender Identity: A person's deeply-held sense or psychological knowledge of their own gender. One's gender identity can be the same or different than the gender assigned at birth. Most people have a gender identity that matches their assigned gender at birth. For some, however, their gender identity is different from their assigned gender. All people have a gender identity, not just transgender people. Gender identity is an innate, largely inflexible characteristic of each individual's personality that is generally established by age four, although the age at which individuals come to understand and express their gender identity may vary based on each person's social and familial social development.

Gender Nonconforming: A term for people whose gender expression differs from stereotypical expectations, such as feminine boys, masculine girls, and those who are perceived as androgynous. This includes people who identify outside traditional gender categories or identify as both genders. Other terms that can have similar meanings include gender diverse or gender expansive.

Gender Support Plan: A document that may be used to create a shared understanding about the ways in which a student's gender identity will be accounted for and supported at school.

Intersex: A general term used for the many ways in which a person can be born with chromosomes, reproductive anatomy, and/or genitalia that do not fit the typical binary expectations of female or male.

LGBTQ+: A commonly used acronym referring to the lesbian, gay, bisexual, transgender, and queer community. The plus sign acknowledges that there are additional identities within the community. Other iterations include LGBTQQIA (Includes questioning, intersex, and asexual/aromantic).

Misgendering: When a person intentionally or accidentally uses the incorrect name or pronouns to refer to a person. Repeated or intentional misgendering is a form of bullying and harassment.

**Non-Binary Gender:** Reflects gender identities that do not fit within the binary of male and female. Individuals may identify as both genders, neither, and/or some mixture thereof. Some terms under this umbrella include, but are not limited to, genderqueer, gender fluid, agender, bigender, etc. Some non-binary people may use they/them/theirs or other neutral pronouns

**Outing:** When someone discloses information about another person's sexual orientation or gender identity without that person's knowledge and/or consent. Outing by school staff without the student's consent can violate the student's privacy rights.

**Pronouns:** Words used to refer to someone without using their name. Common pronouns include, but are not limited to, they/them, she/her, and he/him.

**Sex Assigned at Birth:** Typically, the assignment of male or female at birth by a medical professional based on visible body parts. This binary assignment does not reflect the natural diversity of bodies or experiences.

**Sexual Orientation:** The term for someone's romantic, emotional, physical, and/or sexual attraction to the same or different gender. Sexual orientation is distinct from gender identity.

**Transgender/Trans:** Individuals with a gender identity different than the sex they are assigned at birth. Transgender can be used as an umbrella term that encompasses diversity of gender identities and expressions. Being transgender is not dependent on appearance, body parts, or medical procedures.

**Transition:** The process whereby people may change their gender expression, bodies, and/or identity documents to match their gender identity. Transition can be social, medical, and/or legal and is different for every individual. In children, adolescents, and adults it is increasingly common for gender transition to be an ongoing process.

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Adopted: 4/22

Related Policy (Code#): 103.1; 103.1-R; 103.1-E1-E3; 104.1; 104.1-R; 104.1-E1-E5; 104.3;  
504.13

Legal Reference (Code of Iowa): 216.9 and Title IX

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◀ 504.13 - Transgender and Students  
Nonconforming to Gender Role  
Stereotypes

up

505 - Miscellaneous Matters ▶

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# EXHIBIT J

## 504.3 - Student Injury or Illness at School



When a student becomes ill or is injured at school or a school-sponsored activity, the school district will attempt to notify the student's parent/legal guardian as soon as possible.

The district, while not responsible for medical treatment of an ill or injured student, will have employees administer emergency or minor first aid if possible. An ill or injured student will be released to the care of the parent/legal guardian or qualified medical personnel as quickly as possible.

It is the responsibility of the principal [or designee] to file an accident report for any incident with the superintendent [or designee] within 24 hours after the student is injured.

Annually, parents/legal guardians will be required to complete a medical emergency authorization form indicating the procedures to be followed, if possible, in an emergency involving their child. The authorization form will also include the phone numbers of the parent/legal guardian and alternative numbers to call in case of an injury or illness.

The superintendent [or designee] will be responsible, in conjunction with the district health services staff, to develop rules and regulations governing the procedures in the event a student should become ill or be injured at school or a school-sponsored activity. The district reserves the right to take necessary actions to respond to a health or safety emergency.

Refer to *Policy 504.3-R* for regulations to follow regarding management of medical emergencies.

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Adopted: 6/70

Reviewed: 4/11; 4/12; 7/13; 11/17; 12/20

Revised: 12/13; 10/14

Related Policy (Code #): 504.3-R

Legal Reference (Code of Iowa): § 613.17

IASB Reference: 507.4

## 504.3-R - Management of a Medical Emergency



The following information provides a basis for the management of a medical emergency. All schools throughout the Linn-Mar Community School District have emergency response teams that will respond to an emergency and follow guidelines per American Red Cross training.

### Assess the Situation:

- For safety of the individual (protect from further injury)
- For safety of the responder (personal protective equipment, universal

precautions as applicable to situation)

**Assess Severity of Injury/Illness of Individual:**

- Airway
- Breathing
- Circulation
- Obtain history of incident from individual witness if possible

**Activate Building Emergency Response Team:**

- Call 911 for emergency medical assistance
- Provide appropriate life support or first aid

**Notify:**

- Family/emergency contact
- School nurse
- Building administration

No injured or ill student should be sent home or to a medical facility without the knowledge and permission of the parent/guardian or other responsible person. If emergency situation is life-threatening, call 911, even if parent/guardian cannot be reached.

Document incident using Complete Variance Report.

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Adopted: 10/14

Reviewed: 11/17; 12/20

Related Policy (Code#): 504.3



# EXHIBIT K

## 504.31 - Administration of Medication to Students



The board is committed to the inclusion of all students in the education program and recognizes that some students may be required to take medications during the school day.

Medications will not be administered without signed and dated authorization from the parent/legal guardian requesting medication administration. Medication must be contained in the original pharmacy or manufacturer bottle. The pharmacy bottle must be labeled with the student's name, name of medication, dosage, time of day, and duration it should be given. Manufacturer bottles must include dosage instructions. A record of medication administration must be kept for each student receiving medication including the date; student's name; prescriber or person authorizing administration; medication and its dosage; name, signature, and title of the person administering the medication; time and method of administration; and any unusual circumstances or omissions. Natural remedies and supplements not approved by the Federal Drug Administration (FDA), including essential oils and CBD, will not be administered at school. Administration of medication records will be kept confidential. Protocols for administration of emergency medication will be posted.

When administration of medication requires ongoing professional health judgement, an Individual Health Plan (IHP) will be developed by an authorized practitioner with the student and the student's parent/legal guardian.

A physician's/dentist's signature is required for preschool through 4<sup>th</sup> grade students before any non-prescription medication will be given. Students in grades 5-12 with signed and dated authorization from the parent/legal guardian will be allowed a limited number of standard dose acetaminophen or ibuprofen each school year. The standard dose of these two medications will be provided by Linn-Mar Health Services. Acetaminophen and ibuprofen will be given per board policy at the nurse's discretion. Frequent dosing may require a physician's order and the parent/legal guardian to supply the medication. All other over-the-counter medications for grades 5-12 must be supplied by a parent/legal guardian. The parent/legal guardian must supply any medications in liquid or chewable form or that differ from the standard dose the district supplies.

Persons administering medication will include authorized practitioners such as licensed registered nurses and physicians and persons to whom authorized practitioners have delegated the administration of medication, such as the school nurse or in the nurse's absence a person who has successfully completed an administration of medication course reviewed by State Department of Health. Medications will be stored in a secured area unless an alternate provision is documented.

In accordance with Iowa law Code 280.16 and amended by Senate File 462 (SF 462), a student with asthma or other airway-constricting diseases, or students with a risk of anaphylaxis who use epinephrine auto-injectors, may possess and self-administer their medication with the signed and dated approval of their parent/legal guardian and prescribing, licensed health care professional while at school or at school-sponsored activities. If the student abuses the self-administration policy, the permission to self-administer may be withdrawn. The school district and its employees acting reasonably and in good faith will incur no liability of any injury arising from self-administration of medication by the student. The student is responsible for maintaining self-administration records.

The superintendent [or designee] will be responsible in conjunction with the school nurses to develop rules and regulations governing the administration of medications, prescription and non-prescription, to students. Each student will be provided with the requirements for administration of medication at school.

Disposal of unused, discontinued/recalled, or expired medication will be in compliance with federal and state laws. Prior to disposal, school personnel will make a reasonable attempt to return medications. Medications that have expired, been discontinued, or remain unused will need to be picked up. If medications are not picked up by the date specified, disposal will be in accordance with the disposal procedures for the specific category of medication.

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Adopted: 5/91

Reviewed: 4/11; 7/13; 10/14; 12/20

Revised: 4/12; 4/16; 10/17; 4/18; 6/20; 8/21

Related Policy (Code#): 504.31-E1-E2; 504.32

Legal Reference (Code of Iowa): §§ 124.101(1); 147.107; 152.1; 155A.4; 280.16; 280.23; 281 IAC 14.1; 655 IAC §6.2(152)

*Mandatory Policy*

### 504.31-E1 - Medication Permission Form

Case 1:22-cv-00078-CJW-MAR Document 3-11 Filed 08/05/22 Page 55 of 216



## [Click here to download a copy of the Medication Permission Form](#)

To ensure compliance with Linn-Mar policy for administering medication at school, the following procedures must be followed:

- **ALL MEDICATIONS MUST BE DELIVERED TO AND FROM SCHOOL BY THE PARENT/LEGAL GUARDIAN IN THE ORIGINAL AND PROPERLY LABELED CONTAINER.** The container must include the following information: student name, medication, dosage, time, route, and physician. Written authorization and instructions must be provided by the parent/legal guardian for all medications. The school nurse will have the right to contact the prescribing physician to confirm or clarify medication instructions. The time of medication administration may need to be altered slightly to fit the student's schedule.
- For preschool through 4<sup>th</sup> grade students, a physician's/dentist's signature is required before any non-prescription, over-the-counter medications will be given. This includes acetaminophen, ibuprofen, cough medicines, etc. All medications administered for preschool through 4<sup>th</sup> grade students must be provided by the parent/legal guardian in their original and properly labeled containers.
- High school and middle school students (Grades 5-12), in accordance with Health Services protocols for common complaints of pain or illness, may have limited over-the-counter medications with written or PowerSchool eRegistration parental consent.
- Students in grades 5-12 will be allowed a limited number of standard dose acetaminophen or ibuprofen each school year. The standard dose of these two medications will be provided by Linn-Mar Health Services. Acetaminophen and ibuprofen will be given per board policy at the nurse's discretion. Frequent dosing may require a physician's order and the parent/legal guardian to supply the medication. All other over-the-counter medications for grades 5-12 must be supplied by the parent/legal guardian. The parent/legal guardian must supply any medications in liquid/chewable form or that are different than the standard dose the district supplies.
- If any medications remain after the last day of school, they will be discarded within 24 hours per federal and state laws.

Student Name: \_\_\_\_\_ Grade: \_\_\_\_\_

Medication: \_\_\_\_\_ Dosage: \_\_\_\_\_ Time: \_\_\_\_\_

Start Date: \_\_\_\_\_ End Date: \_\_\_\_\_ For: \_\_\_\_\_ (Health Condition)

Parent/Guardian Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Physician's/Dentist's signature required for non-prescription medications for students in preschool-4th grades.

Physician/Dentist Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Consent for Release of Information:** I give permission for the parties named below to exchange written and verbal information with personnel at LMCS D regarding the above-named student. If this medication is for attention or behavior concerns, LMCS D may send behavior checklists to the physician named below. This permission is for one school year.

**Specific authorization for release of information protected by state or federal law:**

My signature releases all information related to (check appropriate items below):

\_\_\_\_ Mental health/psychological \_\_\_\_ Substance Abuse \_\_\_\_ Allergies \_\_\_\_ Asthma

Other (specify): \_\_\_\_\_

Physician/Facility: \_\_\_\_\_ Phone: \_\_\_\_\_

Parent/Guardian Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Reviewed: 7/13; 12/20

Revised: 10/14; 4/16; 10/17; 6/20; 8/21

Related Policy (Code#) 504.31; 504.31-E2; 504.32

IASB Reference: 507.2, 507.2E1-E2

# 504.31-E2 - Authorization - Asthma or Other Airway Constricting Disease Medication or Epinephrine Auto-Injection Self-Administration Consent Form



## [Click here to download a copy of the Asthmas/Airway Constricting Disease Medication Self-Administration Authorization Form](#)

Student Name:  
Grade:  
Medication:  
Dosage:  
Purpose for Medication:

The following must occur for a student to self-administer asthma or other airway constricting disease medications or for a student with a risk of anaphylaxis to self-administer an epinephrine auto-injector:

- o Parent/legal guardian provides signed, dated authorization for student medication self-administration;
- o Parent/legal guardian provides a written statement from the student's licensed health care professional (A person licensed under Chapter 148 to practice medicine and surgery or osteopathic medicine and surgery, an advanced registered nurse practitioner licensed under Chapter 152 or 152E and registered with the Board of Nursing, or a physician assistant licensed to practice under the supervision of a physician as authorized in Chapters 147 and 148C) containing the following:
  - o Name and purpose of the medication or epinephrine auto-injector
  - o Prescribed dosage
  - o Times or special circumstances under which the medication or epinephrine auto-injector is to be administered;
- o The medication is in the original, labeled container as dispensed or the manufacturer's labeled container containing the student name, name of the medication, directions for use, and date; and
- o Authorization will be renewed annually. In addition, if any changes occur in the medication, dosage, or time of administration the parent/legal guardian is to notify school officials immediately. The authorization will be reviewed as soon as practical.

Provided the above requirements are fulfilled, the school will permit the self-administration of medications by a student with asthma of other airway constricting disease or the use of an epinephrine auto-injector by a student with a risk of anaphylaxis while in school, at school-sponsored activities, under the supervision of school personnel, and before or after normal school activities, such as while in before-school or after-school care on school-operated property. If the student abuses the self-administration policy, the ability to self-administer may be withdrawn by the school or discipline may be imposed after notification is provided to the student's parent/legal guardian.

Pursuant to state law, the district and its employees are to incur no liability except for gross negligence as a result of an injury arising from self-administration of medication or use of an epinephrine auto-injector by the student. The parent/legal guardian of the student will sign a statement acknowledging that the district is to incur no liability except for gross negligence as a result of self-administration of medication or an epinephrine auto-injector by the student as provided by law.

Medication:
Dosage:
Purpose for Medication:
Administration/Instructions:
Special Circumstances:

Discontinue/Re-Evaluate/Follow-Up Date:
Prescriber's Signature:
Date Signed:
Prescriber's Address:
Emergency Phone:

- I request the above-named student possess and self-administer asthma or other airway constricting disease medications and/or an epinephrine auto-injector at school and in school activities according to the authorization and instructions;
- I understand the district and its employees acting reasonably and in good faith will incur no liability for any improper use of medication or an epinephrine auto-injector or for supervising, monitoring, or interfering with a student's self-administration of medication or use of an epinephrine auto-injector;
- I acknowledge that the district will incur no liability except for gross negligence as a result of self-administration of medications or use of an epinephrine auto-injector by the student;
- I agree to coordinate and work with school personnel and notify them when questions arise, or relevant conditions change;
- I agree to provide safe delivery of medications and equipment to/from school and to pick up remaining medications and equipment;
- I agree the information is shared with school personnel in accordance with the Family Educational Rights and Privacy Act (FERPA) and any other applicable laws;
- I agree to provide the school with back-up medications approved on this form; and
- I agree that the student will maintain self-administration records.

Parent/Legal Guardian Signature:
Date Signed:
Parent/Legal Guardian Address:
Home Phone:
Cell Phone:
Work Phone:
Additional Self-Administration Authorization Information:

Adopted: 4/16

Reviewed: 11/17; 12/20

Related Policy (Code#): 504.31; 504.31-E1; 504.32

IASB Reference: 507.2; 507.2E1-E2

## 504.32 - Stock Epinephrine Auto-Injector Supply



The Linn-Mar Community School District seeks to provide a safe environment for students, staff, and visitors who are at risk of severe allergic reactions. Therefore, it is the policy of the district to annually obtain a prescription for epinephrine auto-injectors from a licensed health care professional, in the name of the school district, for administration by a school nurse or trained and authorized personnel to a student or individual who may be experiencing an anaphylactic reaction.

**Procurement and Maintenance of Supply:** The district will stock a minimum of one pediatric dose and one adult dose epinephrine auto-injector in each school building. The supply of such auto-injectors will be maintained in a secure, dark, temperature-controlled location in each school building.

The school nurse or trained and authorized personnel will routinely check the stocked epinephrine auto-injectors and document in a log on a monthly basis: 1) The expiration date, 2) Any visualized particles, or 3) Any color change.



The school nurse or trained and authorized personnel will be responsible for ensuring the district replaces, as soon as reasonably possible, any logged epinephrine auto-injector that is used, close to expiration, discolored, or has particles visible in the liquid.

**Training:** A school nurse or trained and authorized personnel may provide or administer an epinephrine auto-injector from a school supply to a student or individual if they, reasonably and in good faith, believe the student or individual is having an anaphylactic reaction. Training to obtain a signed certificate to become personnel authorized to administer an epinephrine auto-injector will consist of the requirements established by law.

Authorized personnel will be required to provide a procedural skills demonstration to the school nurse demonstrating competency in the administration of stock epinephrine auto-injectors to retain authorization to administer stock epinephrine auto-injectors if the following occur:

- Failure to administer an epinephrine auto-injector to a student or individual by proper route, failure to administer the correct dosage, or failure to administer an epinephrine auto-injector according to generally accepted standards of practice (“medication error”); or
- Accidental injection of an epinephrine auto-injector into a digit of the authorized personnel administering the medication (“medication incident”).

**Reporting:** The district will contact emergency medical services (911) immediately after a stock epinephrine auto-injector is administered to a student or individual. The school nurse or authorized personnel will remain with the student or individual until emergency medical services arrive.

Within 48 hours, the district will report the following to the Iowa Department of Education:

- Each medication incident with the administration of stock epinephrine;
- Each medication error with the administration of stock epinephrine; or
- Administration of a stock epinephrine auto-injector.

As provided by law, the district, board, authorized personnel or school nurse, and the prescriber shall not be liable for any injury arising from the provision, administration, failure to administer, or assistance in the administration of an epinephrine auto-injector provided they acted reasonably and in good faith.

The superintendent [or designee] may develop an administrative process to implement this policy.

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Adopted: 4/16

Reviewed: 11/17; 12/20

Related Policy (Code#): 504.31; 504.31-E1-E2

Legal Reference (Code of Iowa): §§ 135.185; 279.8; 281 IAC 14.3

IASB Reference: 804.5

# EXHIBIT L



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## 503.4 - Student Activity Program



Participation in school activities is a privilege. Students may participate in interscholastic athletic activities, music, speech, and other contests or events approved by the administration. Any such event must be directed or guided by licensed school personnel.

Students will have an opportunity to participate in a school activity unless the activity is not offered, or the student cannot participate for disciplinary reasons. If the activity is an intramural or interscholastic athletic activity, students of the opposite sex will have a comparable opportunity for participation. Comparable opportunity does not guarantee boys and girls will be allowed to play on each other's teams when there are athletic activities available that will allow both boys and girls to reap the benefits of school activities.

Student activity events must be approved by the superintendent unless they involve unusual travel and expense, in which case the board will take action. A high school student who participates in school-sponsored activities may participate in a non-school sponsored activity during the same season. Such outside participation will not conflict with the school-sponsored activity.

It is the responsibility of the superintendent in conjunction with building principals to develop administrative regulations for each school activity. These regulations will include but not be limited to when physical examinations will be required, how and when parents will be informed about the risk of the activity, forms and procedures for a waiver of liability from the parent and student in certain activities, and proof of insurance for the student participating in certain activities. Students wanting to participate in school activities must meet the requirements set out by the district for participation in the activity.

Hours, behavior, and activities will be reasonable and proper as determined by the administration. Anyone who does not recognize the authority and responsibility of the

school personnel will not be permitted to remain in attendance at school-sponsored activities.

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Adopted: 6/70

Reviewed: 5/11; 4/12; 10/14; 1/15; 10/17; 9/20

Revised: 7/13

Related Policy (Code #): 502.5-R3; 502.6; 503.5; 503.6

Legal Reference (Code of Iowa): 216.9; 280.13-14; 281 IAC 12.3(6), 12.6, 36.15(7); 20

USC §§ 1681-1683, 1685-1686; 34 CFT Pt 106.41

IASB Reference: 504.6

*Mandatory Policy*

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[503.5 - Reserved Time for Non-School-Sponsored Student Activities](#)

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# EXHIBIT M



## Linn-Mar school board members debate policies to protect transgender students

Superintendent says proposal already laid out in law



**Grace King**

Apr. 18, 2022 6:00 am



A gay pride flag sits on the floor April 1 next to a Linn-Mar student during a transgender athlete support rally at Linn-Mar Community School in Marion. (Savannah Blake/The Gazette)

MARION — Policies to protect transgender students from discrimination were hotly debated last week by Linn-Mar school board members, passing a proposal 5-2 in the first consideration.

School board members president Brittania Morey, vice president Clark Weaver, Sondra Nelson, Melissa Walker and Rachel Wall approved the policy. Members Matt Rollinger — who is new to the board this year — and Barry Buchholz opposed it.

Policy recommendations require two votes of approval by the school board before being adopted. The board will take a second vote at its meeting at 5 p.m. April 25 in the boardroom of the Learning Resource Center, 2999 N 10th St., Marion.

The proposed policies make official practices already established in the Linn-Mar Community School District to follow federal and state law. The policies were intended to allow all students to advocate for themselves, feel comfortable at school, receive support from staff and work with staff and families to create a plan to help students' succeed.

The policies spell out inclusive practices for transgender students, including giving students access to restrooms, locker rooms or changing areas that corresponds with their gender identity.

It protects a student's privacy by keeping their transgender status private at school — if they wish to.

Any student in seventh grade or older will have priority of a gender support plan over their parent or guardian, according to the proposed policies.

Superintendent Shannon Bisgard said adopting the policies will not change any practice the district has been following for more than five years.

"There is federal and state law in this area that already essentially says exactly what the proposed policy is saying," Bisgard said. "This is something all schools are following whether they have a policy or not."

During school board public comment last week, Gretchen Lawyer, a member of the Marion Alliance for Racial Equity, spoke in favor of the policies.

"This policy helps ensure the safety of (transgender) students and students who do not conform to stereotypical gender roles," Lawyer said. "It will enforce the district's commitment to diversity, equity and inclusion and is another step toward fostering a greater sense of belonging for all students."

A petition on change.org to show support for the proposed policies has received 221 signatures with the goal of 500 signatures as of last Thursday morning.

Five parents and community members spoke in opposition to the proposed policies during public comment last week.

School board member Rollinger asked to see “where all of this specifically is laid out in federal or state law.”

“If the policy committee is saying that’s what it is, I’m assuming it was reviewed and verified. It should be easy to provide that information. I don’t think that’s asking too much,” Rollinger said. “Let’s go line by line with some of this stuff that’s obviously controversial with the community.”

“Do we think the verbiage of this policy really takes in to account all students?” Rollinger asked. “We’re only focusing on a small section of the student body when our job is to make sure we’re thinking of the entire student body.”

School board member Walker said adopting the policies provides transparency to the community about what the district is doing.

"What we’ve heard from the community is that we have not been a transparent board, we have not been a transparent district," Walker said. "This is providing transparency district is asking from us. ... It is making everyone aware of what’s happening."


*Comments: (319) 398-8411; grace.king@thegazette.com*

# EXHIBIT N



Linn-Mar transgender policies called 'safest' for students

They align with the state's guidance on transgender policies

 **Grace King**  
May. 6, 2022 2:13 pm



Protesters stand Friday at the intersection of 10th Street and 29th Avenue in Marion during a rally against the Linn-Mar school board's passage of policies to protect transgender students from discrimination. (Nick Rohlman/The Gazette)



A passenger waves a trans flag at a school in Marion against transgender discrimination. (Nick Rohlman/The Gazette)

MARION — New policies adopted by the Linn-Mar Community School District to protect transgender students from discrimination are the "safest" policies for students and could possibly protect the district from future litigation, said Keenan Crow, director of policy and advocacy at One Iowa, a statewide LGBTQ group.

Parents upset over the policies earlier this week met in Marion with Gov. Kim Reynolds and U.S. Rep. Ashley Hinson, both Republicans seeking re-election this year. The event was not open to the media, and the governor's spokesman said the meeting was private.

"As a parent, they were really concerned that the school district was eliminating them in the process," Reynolds told reporters afterward. "You know, a parent has to sign off on a kid, a child, taking an aspirin or to go on a field trip. But yet they're implementing policy that the student — a seventh-grader — will decide if a parent knows about that (gender identify) or not. They felt very strongly that these are their children, not the school district's."

The policies were [hotly debated last month](#) by Linn-Mar school board members, passing by 5-2 vote in the first and second considerations. School board members President Brittania Morey, vice president Clark Weaver, Sondra Nelson, Melissa Walker and Rachel Wall approved the policy. Members Matt Rollinger — who is new to the board this year — and Barry Buchholz opposed it.

The school board vote makes official practices that were already established at Linn-Mar schools to follow federal and state law — as they also have with other districts. Superintendent Shannon Bisgard said the policies will not change any practice the district has been following for more than five years.

The policies were intended to allow students to advocate for themselves, feel comfortable at school, receive support from staff and work with staff and families to create a plan to help students' succeed.

"It creates a culture of treating students equally and with dignity and respect," One Iowa's Crow said. "It's letting the student come out at their own time and pace in a way that feels safest for them, so they're not put in a dangerous situation at school or at home. All these policies are what the law requires, so it's not changing what schools are practicing."

An April 25 school board meeting elicited four hours of public comment, with the majority of the 76 speakers opposing the policies. Some speakers who oppose the policies called them "woke," cited the exclusion of parents or guardians and said they were un-Christian.

"Folks need to try to put themselves in the shoes of these queer kids and realize why these policies are important rather than envisioning disaster scenarios," Crow said. "It seems like a serious overreaction to something that should be relatively acceptable to everyone."

The policies spell out inclusive practices for transgender students, including giving students access to restrooms, locker rooms or changing areas that correspond with their gender identity. It protects a student's privacy by keeping their transgender status private at school — if they wish to.

Any student in seventh grade or older will have priority over their parent or guardian of a gender support plan, according to the policies.

"The transition process is very anxiety-ridden," Crow said. "There are a lot of unknowns, and one of the things the school district can take out of the unknown column is what is going to happen at school when they transition."

There is not an increase in public safety incidents in restrooms, locker rooms or changing areas when those spaces are made available to people whose gender conforms, Crow said.

There is, however, a significant risk to a transgender person being assaulted if they are forced to use a space that doesn't conform with their gender identity, Crow said.

"The statistically safest policy is the one Linn-Mar just adopted," Crow said. "It minimizes the risk of transgender students being assaulted and there is no increased risk to cisgender students."

Cisgender refers to a person whose gender identity conforms with the one given to them at birth.

At the April 25 school board meeting, the district's legal counsel, Ahlers & Cooney, outlined anti-discrimination laws, which include gender identity at federal and state level and guidance from the Iowa and federal Office of Civil Rights on how to comply with the laws in regards to gender identities.

Gender identity was added to the Iowa Civil Rights Code in 2007, and Title IX guidance at the federal level was first release in 2016. Iowa released similar guidance in 2017, and those procedures have been followed in public schools since.

Title IX is a federal civil rights law that was passed as part of the Education Amendments of 1972. It prohibits sex-based discrimination in any school or any other education program that receives funding from the federal government.

"These policies do not change procedure, they simply put in to policy for easy reference how these laws are followed within our district," school board President Morey said in a Facebook post.

The Iowa City Community School District adopted a similar policy in April 2018, district spokeswoman Kristin Pedersen said.

The Cedar Rapids Community School District does not have a board policy related to transgender youth, but it does have a non-discrimination policy and Title IX expectations, Superintendent Noreen Bush said in an email.

Since 2015, the Cedar Rapids district has aligned with the Iowa Department of Education guidance for equality for transgender students, Bush said.

According to the state Department of Education's policy and guidance on equality for transgender students:

- Students have a right to keep their transgender status private at school, and the district should keep this information confidential. It is not the school's information to share, even if the student has disclosed it to other staff or students.
- The preference for the use of pronouns is the choice of the student, and a legal name change is not required for a student to use a new name for class lists, student activities or yearbook publications.
- All students have access to locker rooms, bathrooms and shower facilities they identify with, and students cannot be forced to use a restroom for which they do not identify.
- School district's anti-discrimination policies must include gender identity discrimination, and staff is trained about gender identity issues in anti-discrimination, bullying and harassment training.

*Comments: (319) 398-8411; grace.king@thegazette.com*

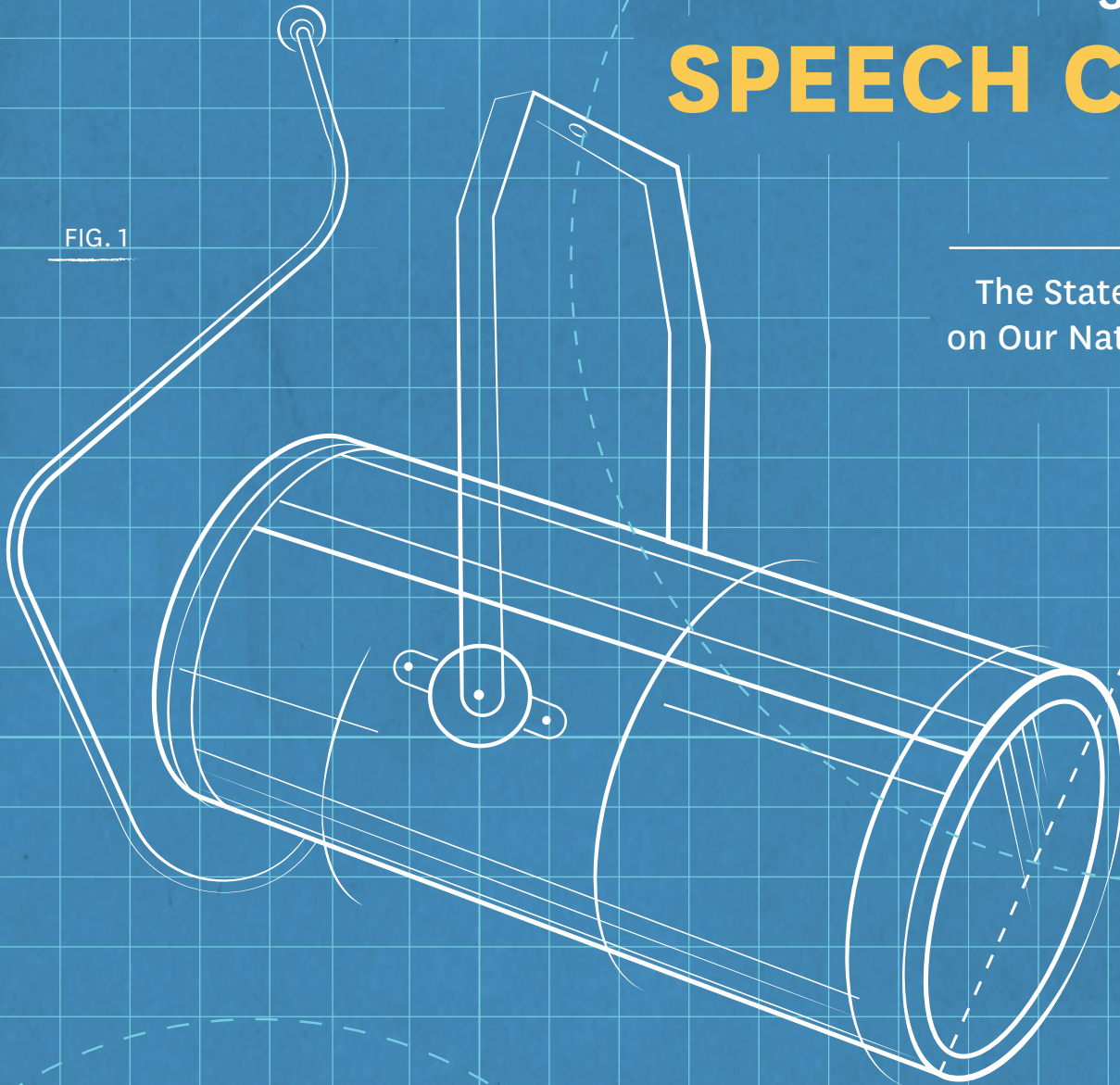


# EXHIBIT O

# Spotlight on **SPEECH CODES** **2021**

The State of Free Speech  
on Our Nation's Campuses

FIG. 1



56

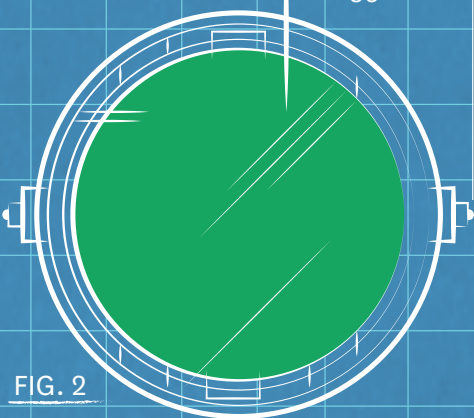


FIG. 2

312

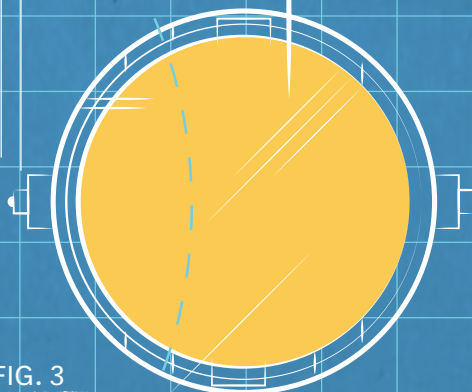


FIG. 3

102

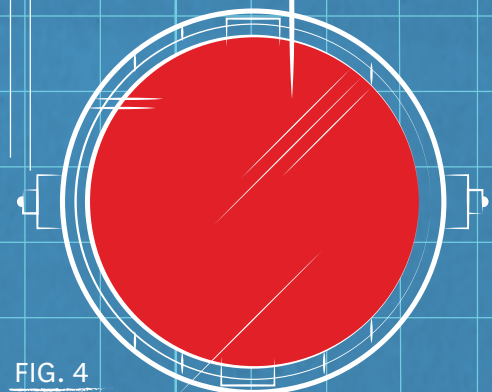


FIG. 4



# TABLE OF CONTENTS

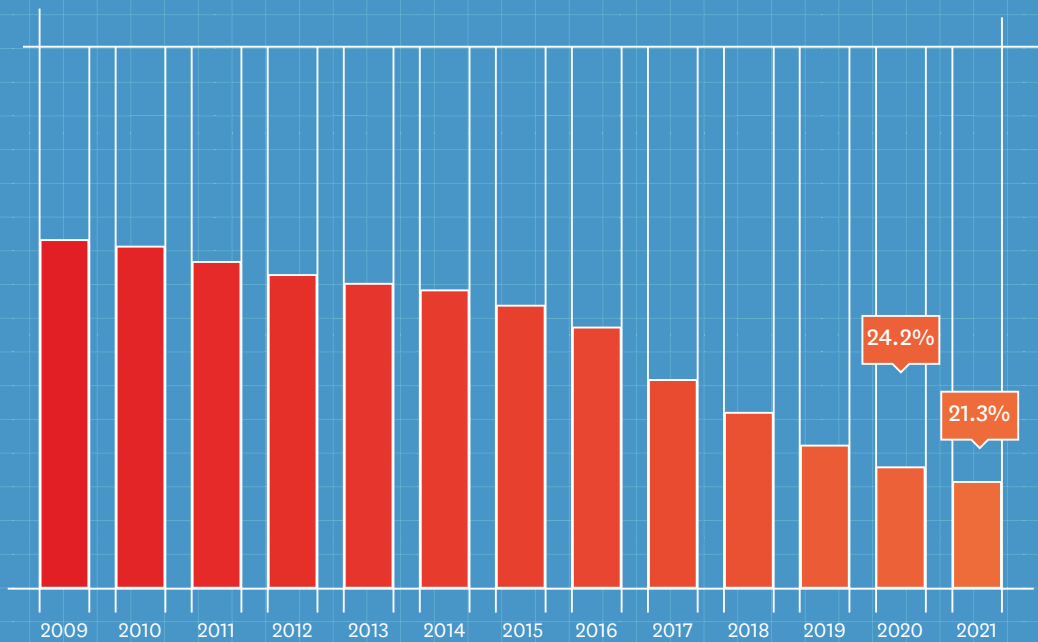
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1	Executive Summary
3	Methodology
5	Findings
9	Discussion
23	What Can Be Done
25	Spotlight On: New Title IX Regulations
27	Appendices

# EXECUTIVE SUMMARY

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For the thirteenth year in a row, the percentage of red light schools has declined.





Most college students in the United States should be able to expect that freedom of expression will be upheld on their campuses. After all, public institutions are legally bound by the First Amendment, and the vast majority of private colleges and universities promise their students commensurate free speech rights.

In spite of this legal landscape, far too many colleges across the country fail to live up to their free speech obligations in policy and in practice. Often, this occurs through the implementation of speech codes: university policies that restrict expression protected by the First Amendment.

For our 2021 report, FIRE surveyed the written policies of 478 colleges and universities, evaluating their compliance with First Amendment standards. Overall, 21.3% of surveyed colleges maintained at least one severely restrictive policy that earned FIRE's worst, "red light" rating, meaning that the policy both clearly and substantially restricts protected speech. This is the thirteenth year in a row that the percentage of schools earning a red light rating has gone down; last year, 24.2% of schools earned a red light rating.

The majority of institutions surveyed (65.3%) earned an overall "yellow light" rating, meaning they maintained at least one yellow light policy. Yellow light policies are either clear restrictions on a narrower range of expression or policies that, by virtue of vague wording, could too easily be applied to restrict protected expression. While the steady decline in red light institutions is cause for optimism, FIRE will continue to work with colleges and universities to ensure that yellow light institutions improve to earn our highest, "green light" rating.

A green light rating indicates that none of a university's written policies seriously imperil protected expression. A total of 56 colleges and universities (11.7% of those surveyed) earned an overall green light rating, up from 50 schools as of last year's report.

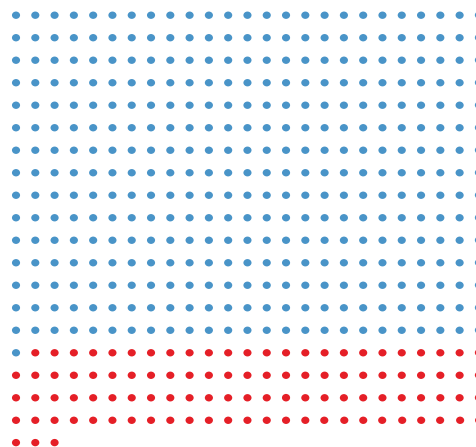
In further good news, more and more colleges and universities are adopting policy statements in support of free speech modeled after the "Report of the Committee on Freedom of Expression" at the University of Chicago (the "Chicago Statement"). As of this writing, 76 universities, university systems, or faculty bodies have endorsed a version of the "Chicago Statement," with six adoptions since last year's report.

Though these improvements in policy are heartening, free speech on campus remains under threat. Demands for censorship of student and faculty speech—whether originating on or off campus—are common, and universities continue to investigate and punish students and faculty over protected expression. FIRE surveyed 478 schools and found 21.3% maintain red light policies.

This year, schools across the country moved classes online and set forth new regulations in response to the COVID-19 pandemic, presenting a new set of challenges for campus free speech advocates.<sup>1</sup> These new challenges, combined with an increase in social justice protests and anti-racism activism on campuses, resulted in FIRE's busiest summer ever. Indeed, in the month of June, FIRE's Individual Rights Defense Program reviewed 287 cases of alleged violations of student and faculty rights, while the previous two years saw an average of just 49 cases each June.<sup>2</sup>

It is imperative that those who care about free speech on campus stay vigilant. The decrease in restrictive speech codes and the proliferation of free speech policy statements are the result of the tireless work of free speech advocates at FIRE and elsewhere. But we must ensure that new national and global challenges do not result in such progress being lost. We must continue to work to ensure that students have the opportunity to pursue their education, and that faculty are able to teach with the greatest possible foundation for free expression in place.

#### **FIRE surveyed 478 schools and found 21.3% maintain red light policies**



<sup>1</sup> See FIRE statement on COVID-19 restrictions on expressive and associational rights, FOUND. FOR INDIVIDUAL RIGHTS IN EDUC. (Sept. 8, 2020), [thefire.org/fire-statement-on-covid-19-restrictions-on-expressive-and-associational-rights](https://thefire.org/fire-statement-on-covid-19-restrictions-on-expressive-and-associational-rights).

<sup>2</sup> Adam Steinbaugh, *This has been FIRE's busiest summer ever. What happened?*, FOUND. FOR INDIVIDUAL RIGHTS IN EDUC. (Sept. 14, 2020), [thefire.org/this-has-been-fires-busiest-summer-ever-what-happened](https://thefire.org/this-has-been-fires-busiest-summer-ever-what-happened).

## METHODOLOGY

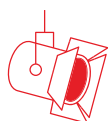
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FIRE believes that free speech is not only a moral imperative, but an essential element of a college education.

For this report, FIRE surveyed publicly available policies at 372 four-year public institutions and 106 of the nation's most prestigious private institutions. Our research focuses in particular on public universities because, as explained in detail below, public universities are legally bound to protect students' right to free speech and can be successfully sued in court when they do not.

FIRE rates colleges and universities as "red light," "yellow light," or "green light" institutions based on how much, if any, protected expression their written policies governing student conduct restrict. The speech code ratings do not take into account a university's "as-applied" violations of student speech rights or other cases of censorship, student- or faculty-led calls for punishment of protected speech, and related incidents and controversies. Monitoring and rating such incidents consistently across 478 institutions with accuracy is not feasible and is beyond the scope of this report.

The speech code ratings are defined as follows:



**Red Light:** A red light institution maintains at least one policy both clearly and substantially restricting freedom of speech, or bars public access to its speech-related policies by requiring a university login and password for access.

A "clear" restriction unambiguously infringes on protected expression. In other words, the threat to free speech at a red light institution is obvious on the face of the policy and does not depend on how the policy is applied. A "substantial" restriction on free speech is one that is broadly applicable to campus expression. For example, a ban on "offensive speech" would be a clear violation (in that it is unambiguous) as well as a substantial violation (in that it covers a great deal of what is protected under First Amendment standards). Such a policy would earn a university a red light.

When a university restricts access to its speech-related policies by requiring a login and password, it denies prospective students and their parents the ability to weigh this crucial information prior to matriculation. At FIRE, we consider this denial to be so deceptive and serious that it alone warrants an overall red light rating.

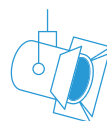


**Yellow Light:** A yellow light institution maintains policies that could be interpreted to suppress protected speech or policies that, while clearly restricting freedom of speech, restrict relatively narrow categories of speech.

For example, a policy banning "verbal abuse" has broad applicability and poses a substantial threat to free speech, but it is not a clear violation because "abuse" might refer to unprotected speech and conduct, such as threats of violence or unlawful harassment. Similarly, while a policy banning "profanity on residence hall door whiteboards" clearly restricts speech, it is relatively limited in scope. Yellow light policies are typically unconstitutional when maintained by public universities,<sup>3</sup> and a rating of yellow light rather than red light in no way means that FIRE condones a university's restrictions on speech. Rather, it means that in FIRE's judgment, those restrictions do not clearly and substantially restrict speech in the manner necessary to warrant a red light rating.



**Green Light:** If FIRE finds that a university's policies do not seriously threaten campus expression, that college or university receives a green light rating. A green light rating does not necessarily indicate that a school actively supports free expression in practice; it simply means that the school's written policies do not pose a serious threat to free speech.



**Warning:** FIRE believes that free speech is not only a moral imperative, but an essential element of a college education. However, private universities, as private associations, possess their own right to free association, which allows them to prioritize other values above the right to free speech if they wish to do so. Therefore, when a private university clearly and consistently states that it holds a certain set of values above a commitment to freedom of speech, FIRE gives it a Warning rating in order to warn prospective students and faculty members of this fact.<sup>4</sup> Eight schools surveyed for this report meet these criteria.<sup>5</sup>

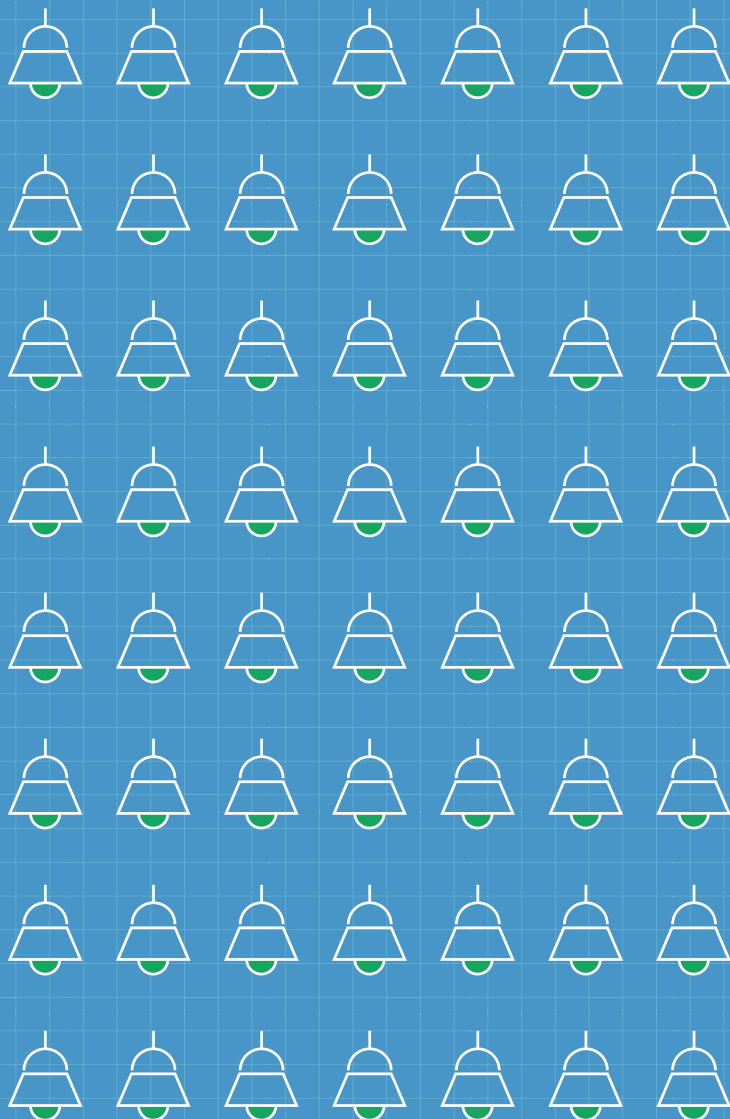
<sup>3</sup> See, e.g., *Gooding v. Wilson*, 405 U.S. 518, 519, 528 (1972) (holding that a Georgia statute prohibiting "opprobrious words or abusive language" was unconstitutional because those terms, as commonly understood, encompass speech protected by the First Amendment). Under this and related precedents, a public university maintaining a ban on "verbal abuse" and similar expression would be constitutionally deficient.

<sup>4</sup> For example, Brigham Young University's "Church Educational System Honor Code" provides: "Brigham Young University and other Church Educational System institutions exist to provide an education in an atmosphere consistent with the ideals and principles of The Church of Jesus Christ of Latter-day Saints. . . . By accepting appointment, continuing in employment, being admitted, or continuing class enrollment, each member of the BYU community personally commits to observe these Honor Code standards approved by the Board of Trustees . . . including the avoidance of profane and vulgar language." *Church Educational System Honor Code*, BRIGHAM YOUNG UNIV., [policy.byu.edu/view/index.php?p=26](http://policy.byu.edu/view/index.php?p=26) (last visited Oct. 7, 2020). It would be clear to any reasonable person reading this policy that students are not entitled to unfettered free speech at BYU.

<sup>5</sup> FIRE has designated the following colleges and universities as "Warning" schools: Baylor University, Brigham Young University, Pepperdine University, Saint Louis University, the United States Military Academy, the United States Naval Academy, Vassar College, and Yeshiva University.

# FINDINGS

The number of green light institutions has continued to increase this year, from 50 to 56.



Of the 478 schools reviewed by FIRE, 102, or 21.3%, received a red light rating. 312 schools received a yellow light rating (65.3%), and 56 received a green light rating (11.7%). Eight schools earned a Warning rating (1.7%).<sup>6</sup>

This marks the thirteenth year in a row that the percentage of universities with an overall red light rating has fallen, this year from 24.2% to 21.3%. The continued reduction in red light institutions is encouraging: Just over a decade ago, red light schools encompassed about 75% of the report's findings.<sup>7</sup>

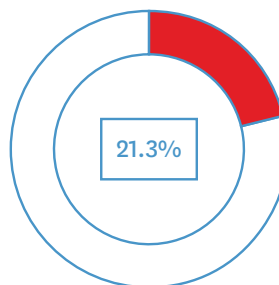
However, this year's numbers also reveal an increase in yellow light institutions, as 63.9% of schools earned an overall yellow light last year, compared to 65.3% this year. While yellow light policies are not as clearly and substantially restrictive as red light policies on their face, they nevertheless impose impermissible restrictions on expression.

The number of green light institutions has continued to rise this year, from 50 institutions last year to 56 now.<sup>8</sup> At 11.7%, the percentage of green light schools is at an all-time high, with more than one million students across the country enrolled at green light colleges and universities.<sup>9</sup>

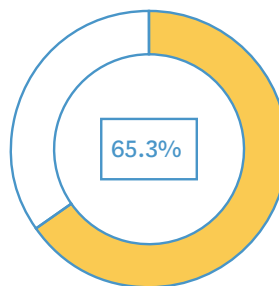
In total, 27 schools improved their overall ratings this year.<sup>10</sup>



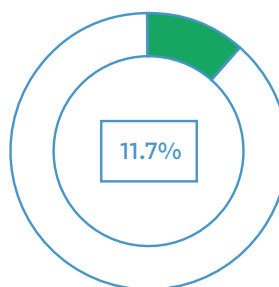
RED LIGHT



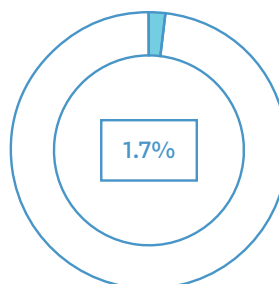
YELLOW LIGHT



GREEN LIGHT



WARNING



<sup>6</sup> See Appendix A for a full list of schools by rating.

<sup>7</sup> The 2009 report and all other past Spotlight on Speech Codes reports are available at [thefire.org/spotlight/reports](https://thefire.org/spotlight/reports).

<sup>8</sup> Colorado Mesa University, Fayetteville State University, Florida State University, Jackson State University, and the University of Colorado Boulder all joined the ranks of green light schools since last year's report. Emory University, which went from an overall green light rating to an overall red light rating last year by password-protecting certain policies, resolved this issue over the past year, restoring its green light status.

<sup>9</sup> Press Release, Found. for Individual Rights in Educ., One million students now attend colleges with FIRE's highest free speech rating (Feb. 26, 2019),

[thefire.org/one-million-students-now-attend-colleges-with-fires-highest-free-speech-rating](https://thefire.org/one-million-students-now-attend-colleges-with-fires-highest-free-speech-rating).

<sup>10</sup> See Appendix B for a full list of rating changes over the 2019–20 academic year.

<sup>11</sup> The remaining 0.5% of public institutions in the database earn FIRE's Warning rating. The Warning rating is typically reserved for private universities that clearly prioritize other values above students' free speech, such that students do not have a reasonable expectation of free speech rights. However, despite their public status as federal service academies, the United States Military Academy and the United States Naval Academy earn the Warning rating because they place other institutional priorities above free speech.



## PUBLIC COLLEGES AND UNIVERSITIES

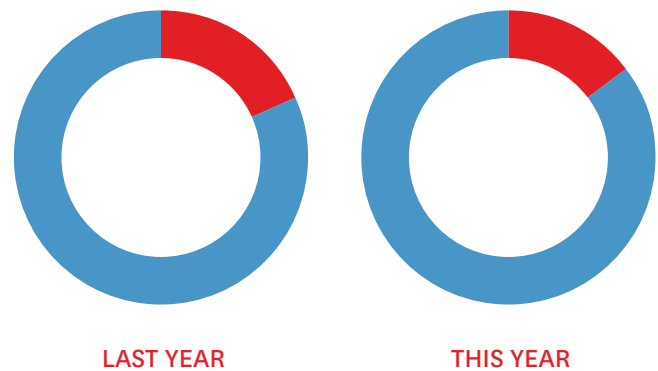
The percentage of public schools with a red light rating dropped again, from 18.3% last year to 14.5% this year. Overall, of the 372 public universities reviewed for this report, 54 received a red light rating (14.5%), 264 received a yellow light rating (71%), and 52 received a green light rating (14%). As a result, public colleges and universities will soon reach a significant turning point: There are nearly the same number of public green light schools as public red light schools. As just nine public schools earned the green light rating a decade ago, this milestone reveals significant progress.

This year, FIRE was pleased to welcome Colorado Mesa University, Fayetteville State University, Florida State University, Jackson State University, and the University of Colorado Boulder to the list of green light institutions.

Notably, Florida State University and the University of Colorado Boulder bring more than 30,000 students each to the green light list. Both are flagship institutions in their state, a status we hope to leverage into further policy reform with other schools in their respective university systems.

In the coming year, FIRE will continue to work strategically to reform policies at public university systems across the country.

**All of the four-year public universities in Arizona now earn FIRE’s highest rating, making Arizona the only state able to claim this distinction.**



Red light ratings of public schools dropped from 18.3% to 14.5% this year.

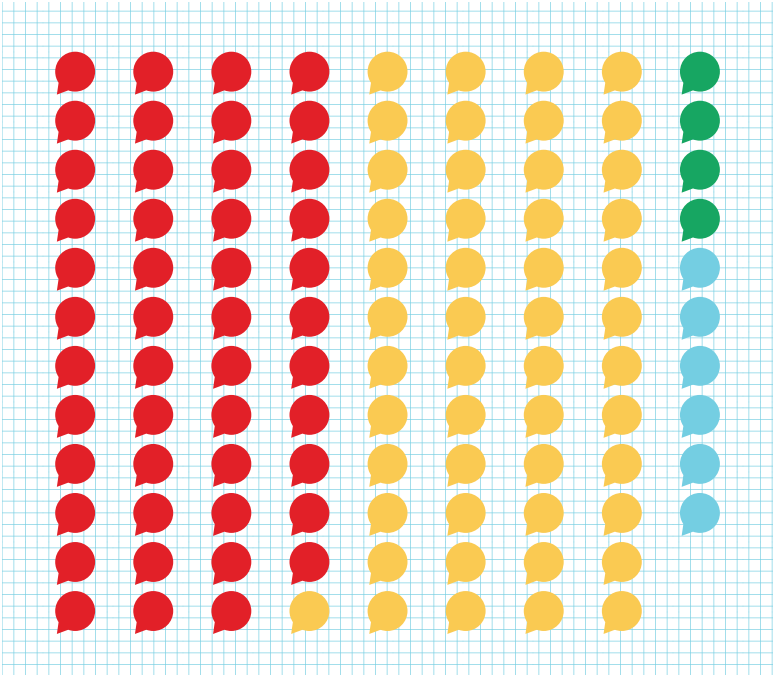
Private Colleges and Universities

Of the 106 private colleges and universities reviewed, 47 received a red light rating (44.3%). 49 received a yellow light rating (46.2%), four received a green light rating (3.8%), and six earned a Warning rating (5.7%).

The percentage of private universities earning a red light rating, which stood at 44.8% last year, continued to decrease, coming in at 44.3% this year. This progress, albeit slight, is hard-earned given that private universities are not legally bound by the First Amendment, which regulates only government actors. For this reason, it is gratifying that these colleges are closer to fulfilling their institutional commitments to free expression.

FIRE will continue to work with private colleges and universities to improve policies so that they better meet institutional commitments to protecting students’ free speech rights.

Of the 106 private schools reviewed by FIRE, 47 received a red light rating, 49 received a yellow light rating, 4 received a green light rating, and 6 earned a Warning rating.



# DISCUSSION

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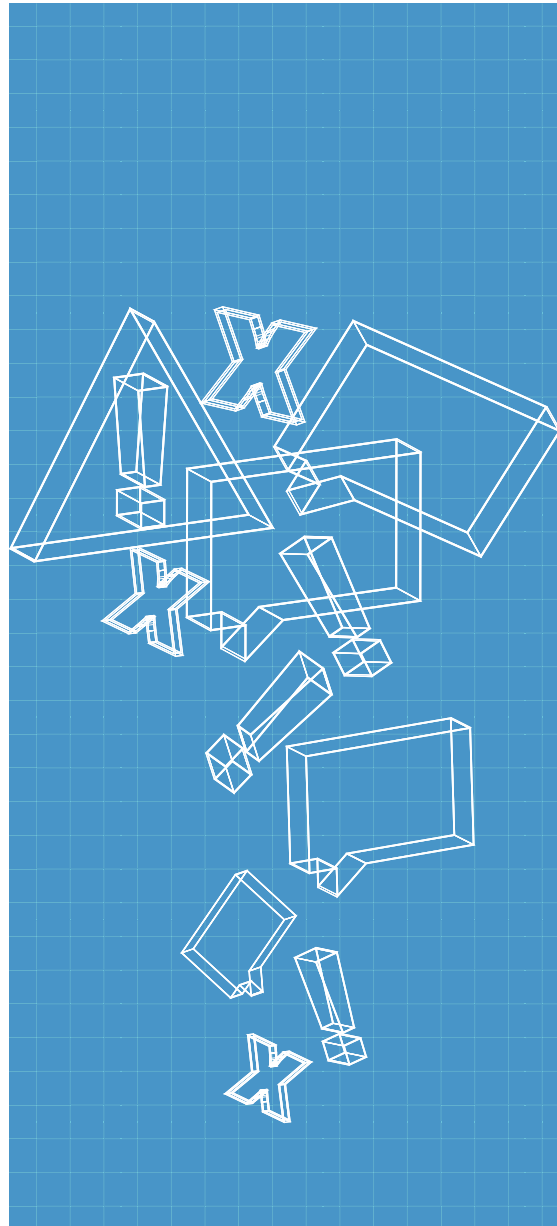
## Speech Codes on Campus: Background and Legal Challenges

Speech codes—university regulations prohibiting expression that would be constitutionally protected in society at large—gained popularity with college administrators in the 1980s and 1990s. As discriminatory barriers to education declined, female and minority enrollment increased. Concerned that these changes would cause tension and that students who finally had full educational access would arrive at institutions only to be offended by other students, college administrators enacted speech codes.

In the mid-1990s, the phenomenon of campus speech codes converged with the expansion of Title IX, the federal law prohibiting sex discrimination in educational institutions receiving federal funds.<sup>12</sup> Under the rationale of the obligation to prohibit discriminatory harassment, unconstitutionally overbroad harassment policies banning subjectively offensive conduct proliferated. (This Title IX enforcement history is covered in further detail in this report’s “Spotlight on: New Title IX Regulations” feature.)

In enacting speech codes, administrators ignored or did not fully consider the philosophical, social, and legal ramifications of placing restrictions on speech, particularly at public universities. As a result, federal courts have overturned speech codes at numerous colleges and universities over the past several decades.<sup>13</sup>

Despite the overwhelming weight of legal authority against speech codes, a large number of institutions—including some of those that have been successfully sued on First Amendment grounds—still maintain unconstitutional and illiberal speech codes. It is with this unfortunate fact in mind that we turn to a more detailed discussion of the ways in which campus speech codes violate individual rights and what can be done to challenge them.



<sup>12</sup> Title IX of the Education Amendments of 1972, 20 U.S.C. § 1681, provides that: “No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance.” See generally Jacob E. Gersen & Jeannie Suk, *The Sex Bureaucracy*, 104 CAL. L. REV. (2016) (discussing evolution of Title IX requirements).

<sup>13</sup> *McCauley v. Univ. of the V.I.*, 618 F.3d 232 (3d Cir. 2010); *DeJohn v. Temple Univ.*, 537 F.3d 301 (3d Cir. 2008); *Dambrot v. Cent. Mich. Univ.*, 55 F.3d 1177 (6th Cir. 1995); *Univ. of Cincinnati Chapter of Young Am. for Liberty v. Williams*, 2012 U.S. Dist. LEXIS 80967 (S.D. Ohio Jun. 12, 2012); *Smith v. Tarrant Cty. Coll. Dist.*, 694 F. Supp. 2d 610 (N.D. Tex. 2010); *Coll. Republicans at S.F. St. Univ. v. Reed*, 523 F. Supp. 2d 1005 (N.D. Cal. 2007); *Roberts v. Haragan*, 346 F. Supp. 2d 853 (N.D. Tex. 2004); *Bair v. Shippensburg Univ.*, 280 F. Supp. 2d 357 (M.D. Pa. 2003); *Booher v. N. Ky. Univ. Bd. of Regents*, No. 2:96-CV-135, 1998 U.S. Dist. LEXIS 11404 (E.D. Ky. July 21, 1998); *Corry v. Leland Stanford Junior Univ.*, No. 740309 (Cal. Super. Ct. Feb. 27, 1995) (slip op.); *UWM Post, Inc. v. Bd. of Regents of the Univ. of Wis.*, 774 F. Supp. 1163 (E.D. Wisc. 1991); *Doe v. Univ. of Mich.*, 721 F. Supp. 852 (E.D. Mich. 1989). In addition, numerous institutions have voluntarily modified their speech codes as part of settlement agreements. See, e.g., Press Release, Found. for Individual Rights in Educ., VICTORY: Speech rights of 150,000 students to be restored as Los Angeles Community College District settles lawsuit, will abandon Pierce College’s tiny free speech zone (Dec. 13, 2018), [thefire.org/victory-speech-rights-of-150000-students-to-be-restored-as-los-angeles-community-college-district-settles-lawsuit-will-abandon-pierce-colleges-tiny-free-speech-zone](https://thefire.org/victory-speech-rights-of-150000-students-to-be-restored-as-los-angeles-community-college-district-settles-lawsuit-will-abandon-pierce-colleges-tiny-free-speech-zone) [hereinafter *Pierce College Press Release*]; Press Release, Found. for Individual Rights in Educ., VICTORY: Student detained for passing out political flyers settles lawsuit with Illinois College (Apr. 10, 2018), [thefire.org/victory-student-detained-for-passing-out-political-flyers-settles-lawsuit-with-illinois-college](https://thefire.org/victory-student-detained-for-passing-out-political-flyers-settles-lawsuit-with-illinois-college) [hereinafter *Illinois College Press Release*]; Found. for Individual Rights in Educ., VICTORY: Texas College Settles Free Speech Lawsuit After Telling Student that Gun Rights Sign Needs ‘Special Permission’ (May 4, 2016), [thefire.org/victory-texas-college-settles-free-speech-lawsuit-after-telling-student-that-gun-rights-sign-needs-special](https://thefire.org/victory-texas-college-settles-free-speech-lawsuit-after-telling-student-that-gun-rights-sign-needs-special).

## Public Universities vs. Private Universities

With limited, narrowly defined exceptions, the First Amendment prohibits the government—including governmental entities such as state universities—from restricting freedom of speech. A good rule of thumb is that if a state law would be declared unconstitutional for violating the First Amendment, a similar regulation at a state college or university is likewise unconstitutional.

The guarantees of the First Amendment generally do not apply to students at private colleges because the First Amendment regulates only government conduct.<sup>14</sup> Moreover, although acceptance of federal funding does confer some obligations upon private colleges (such as compliance with federal anti-discrimination laws), compliance with the First Amendment is not one of them.

This does not mean, however, that students and faculty at all private schools are not entitled to free expression. In fact, most private universities explicitly promise freedom of speech and academic freedom in their official policy materials.

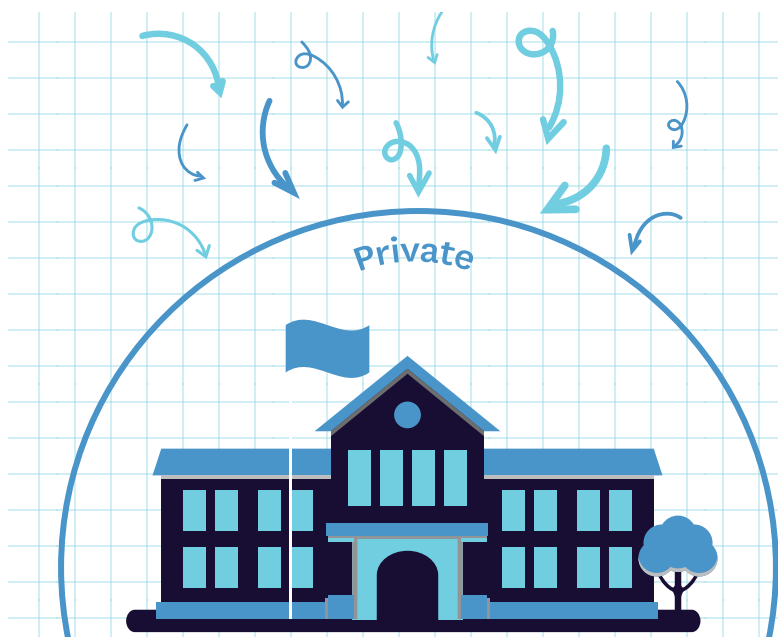
Middlebury College, for example, states in its student handbook that it “recognizes and affirms that free intellectual inquiry, debate, and constructive dialogue are vital to Middlebury’s academic mission and must be protected even when the views expressed are unpopular or controversial.”<sup>15</sup> Likewise, Princeton University, echoing the Chicago Statement, “guarantees all members of the University community the broadest possible latitude to speak, write, listen, challenge, and learn” and explains that “it is not the proper role of the University to attempt to shield individuals from ideas and opinions they find unwelcome, disagreeable, or even deeply offensive.”<sup>16</sup> Yet both of these institutions, along with most other private colleges and universities, maintain policies that prohibit the very speech they promise to protect.<sup>17</sup>

This year, both private and public institutions, including statewide systems, have continued to adopt policy statements in support of free speech modeled after the one produced in January 2015 by the Committee on

Freedom of Expression at the University of Chicago.<sup>18</sup> Since our last report, six more institutions have adopted policy statements in support of free speech modeled after the “Chicago Statement.” Notably, Colorado Mesa University adopted the Chicago Statement in conjunction with revising all of its speech codes to earn an overall green light rating, further underscoring its commitment to free speech.<sup>19</sup>

**The First Amendment prohibits the government—including governmental entities such as state universities—from restricting freedom of speech.**

FIRE will continue to encourage institutions, private and public alike, to adopt a similar policy statement over the course of the next year.



permission; Press Release, Found. for Individual Rights in Educ., Victory: Lawsuit Settlement Restores Free Speech Rights at Dixie State U. After Censorship of Bush, Obama, Che Flyers (Sept. 17, 2015), [thefire.org/victory-lawsuit-settlement-restores-free-speech-rights-at-dixie-state-u-after-censorship-of-bush-obama-che-flyers](http://thefire.org/victory-lawsuit-settlement-restores-free-speech-rights-at-dixie-state-u-after-censorship-of-bush-obama-che-flyers).

<sup>14</sup> California maintains a law that applies the protections of the First Amendment to private, nonsectarian institutions of higher education in the state. Section 94367 of the California Education Code—the so-called “Leonard Law”—provides: “No private postsecondary educational institution shall make or enforce a rule subjecting a student to disciplinary sanctions solely on the basis of conduct that is speech or other communication that, when engaged in outside the campus or facility of a private postsecondary institution, is protected from governmental restriction by the First Amendment to the United States Constitution or Section 2 of Article I of the California Constitution.” The code further provides that the law “does not apply to a private postsecondary educational institution that is controlled by a religious organization, to the extent that the application of this section would not be consistent with the religious tenets of the organization.” Cal. Educ. Code § 94367(a).

<sup>15</sup> B.I.B. Non-Discrimination Investigations & Resolutions Procedure, MIDDLEBURY HANDBOOK, <http://www.middlebury.edu/about/handbook/policies-for-all/non-discrim-policies/anti-harassment-discrimin> (last visited Oct. 23, 2020).

<sup>16</sup> Statement on Freedom of Expression, PRINCETON UNIV. RIGHTS, RULES, RESPONSIBILITIES 2020, <http://princeton.edu/university#comp113> (last visited Oct. 23, 2020).



## What Exactly Is “Free Speech,” and How Do Universities Curtail It?

What does FIRE mean when we say that a university restricts “free speech”? Do people have the right to say absolutely anything, or are certain types of expression unprotected?

Simply put, the overwhelming majority of speech is protected by the First Amendment. Over the years, the Supreme Court has carved out a limited number of narrow exceptions to the First Amendment, including speech that incites reasonable people to immediate violence; so-called “fighting words” (face-to-face confrontations that lead to physical altercations); harassment; true threats and intimidation; obscenity; and defamation. If the speech in question does not fall within one of these exceptions, it most likely is protected.

The exceptions are often misapplied and abused by universities to punish constitutionally protected speech. There are instances where the written policy at issue may be constitutional—for example, a prohibition on “incitement”—but its application may not be. In other instances, a written policy will purport to be a legitimate ban on a category of unprotected speech like harassment or true threats, but (either deliberately or through poor drafting) will encompass protected speech as well. Therefore, it is important to understand what these narrow exceptions to free speech actually mean in order to recognize when they are being misapplied.

**The exceptions are often misapplied and abused by universities to punish constitutionally protected speech.**



<sup>17</sup> Middlebury College and Princeton University both earn overall red light ratings. See School Spotlight: Middlebury College, FOUND. FOR INDIVIDUAL RIGHTS IN EDUC., [thefire.org/schools/middlebury-college](https://thefire.org/schools/middlebury-college) (last visited Oct. 16, 2020); School Spotlight: Princeton University, FOUND. FOR INDIVIDUAL RIGHTS IN EDUC., [thefire.org/schools/princeton-university](https://thefire.org/schools/princeton-university) (last visited Oct. 16, 2020).

<sup>18</sup> Committee on Freedom of Expression at the University of Chicago, *Report of the Committee on Freedom of Expression*, available at [provost.uchicago.edu/FOECommitteeReport.pdf](https://provost.uchicago.edu/FOECommitteeReport.pdf). For a complete list of institutions that have adopted a version of the Chicago Statement, see [thefire.org/chicago-statement-university-and-faculty-body-support](https://thefire.org/chicago-statement-university-and-faculty-body-support).

<sup>19</sup> Press Release, Found. for Individual Rights in Educ., Colorado Mesa University earns nation's top free speech rating for colleges (Sept. 30, 2020), [thefire.org/colorado-mesa-university-earns-nations-top-free-speech-rating-for-colleges](https://thefire.org/colorado-mesa-university-earns-nations-top-free-speech-rating-for-colleges).

## Threats and Intimidation

The Supreme Court has defined “true threats” as “statements where the speaker means to communicate a serious expression of an intent to commit an act of unlawful violence to a particular individual or group of individuals.”<sup>20</sup> The Court also has defined “intimidation,” of the type not protected by the First Amendment, as a “type of true threat, where a speaker directs a threat to a person or group of persons with the intent of placing the victim in fear of bodily harm or death.”<sup>21</sup>

Neither term would encompass, for example, a vaguely worded statement that is not directed at anyone in particular. Nevertheless, far too many institutions fail to properly define these legal standards in their written policies.

For example:

- California State University – Monterey Bay defines threats as “[a]ny threat or action of physical, emotional, or verbal harm in any form.”<sup>22</sup>
- Southern Illinois University at Carbondale’s student conduct code defines intimidation as “[i]mplied threats or acts that cause a reasonable fear of harm in another.”<sup>23</sup>
- Southern Oregon University bans “[t]hreatening communication,” defined as “[t]hreats made online or through electronic communication with sufficient content such that it causes fear of injury or other harm.”<sup>24</sup>

Further, universities frequently misapply policies prohibiting threats and intimidation so as to infringe on protected speech, citing generalized concerns about safety with no regard to the boundaries of protected speech.

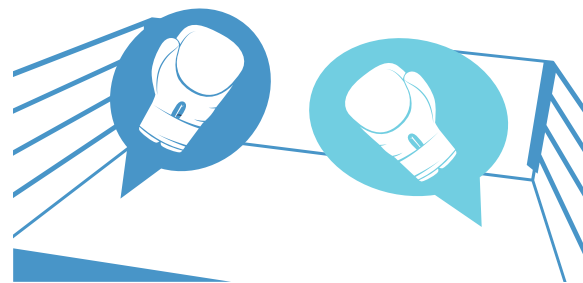
This year, Fordham University placed a student on probation over two social media posts, finding his actions constituted a violation of its “Threats / Intimidation” policy.<sup>25</sup> The student’s first post was a photo of retired St. Louis Police captain David Dorn, a police officer killed by looters during unrest following the killing of George Floyd, with the caption “Y’all a bunch of hypocrites.” In the second post, on the

anniversary of the massacre at Tiananmen Square, he posted a photo of himself holding a gun in his backyard with the caption, “Don’t tread on me.”

In a letter to Fordham, FIRE explained that his conduct did not approach the actual legal standards for a true threat or intimidation:

It appears that Tong’s discipline is based on his benign photo of himself holding of a firearm and his apparent criticism of protests for racial justice in his post about David Dorn. However, neither of his Instagram posts approximate a threat of any sort. Neither post was directed at a specific individual or group of individuals, and neither post on its face or in context indicates Tong intended to engage in any form of violence. Fordham’s consideration of Tong’s social media post of him holding a gun and his comment on David Dorn to be a “threat” demonstrates an abandonment of any reasonable or fair understanding of the term.<sup>26</sup>

Tong sued Fordham, and the university argued in response that it has the “prerogative to limit a student’s free expression rights,”<sup>27</sup> despite repeatedly promising to protect students’ free speech in its policies.<sup>28</sup> As a result, the Department of Education sent a letter notifying Fordham that it is investigating whether the university has misrepresented its commitment to the protection of students’ expression.<sup>29</sup>



As Fordham’s treatment of Tong demonstrates, universities that are bound by the First Amendment or that promise their students free speech must revise their policies so that they track the applicable First Amendment legal standards, and must enforce the policies accordingly.

<sup>20</sup> *Virginia v. Black*, 538 U.S. 343, 359 (2003).

<sup>21</sup> *Id.* at 360.

<sup>22</sup> *Behavioral Health, and/or Safety of Self/Others*, STUDENT HOUSING & RESIDENTIAL LIFE COMMUNITY STANDARDS AND CONDUCT PROCESS OVERVIEW, d2jtc9c99zy7w.cloudfront.net/TJ9un1suS72Vzs2Ws5uw\_SHRL%20Community%20Standards%204.12.19.pdf (last visited Oct. 17, 2020).

<sup>23</sup> *Threatening Behaviors*, SOUTHERN ILLINOIS UNIV. CARBONDALE STUDENT CONDUCT CODE at 66 (updated Aug. 14, 2020), srr.siu.edu/\_common/Student\_Conduct\_Code.pdf.

<sup>24</sup> *Threatening Conduct*, CODE OF STUDENT CONDUCT at 21 (updated Sept. 18, 2020), inside.sou.edu/assets/policies/Code\_of\_Student\_Conduct\_091820.pdf.

<sup>25</sup> *Austin Tong Sanction Letter*, FOUND. FOR INDIVIDUAL RIGHTS IN EDUC. (July 17, 2020), thefire.org/austin-tong-sanction-letter-july-14-2020.

<sup>26</sup> See Letter from Lindsie Rank, Program Officer, Individual Rights Defense Program, Found. for Individual Rights in Educ., to Father Joseph M. McShane, S.J., President, Fordham Univ. (July 17, 2020), d28htnjz2elwuj.cloudfront.net/wp-content/uploads/2020/07/17105352/FIRE-letter-to-Fordham-University-July-17-2020.pdf.

<sup>27</sup> Adam Goldstein, *Analysis: Department of Education Investigates Fordham over Broken Speech Promises in Austin Tong Case*, FOUND. FOR INDIVIDUAL RIGHTS IN EDUC. (Aug. 15, 2020), thefire.org/analysis-department-of-education-

## Incitement

There is also a propensity among universities to restrict speech that offends other students on the basis that it constitutes “incitement.” The basic concept, as administrators too often see it, is that offensive or provocative speech will anger those who disagree with it, perhaps so much so that it moves them to violence. While preventing violence is necessary, this is an impermissible misapplication of the incitement doctrine.

Incitement, in the legal sense, does not refer to speech that may lead to violence on the part of those opposed to or angered by it, but rather to speech that will lead those who agree with it to commit immediate violence. In other words, the danger is that certain speech will convince sympathetic, willing listeners to take immediate unlawful action.



For instance, in *Hess v. Indiana*, the Supreme Court held that a man who had loudly stated “We’ll take the fucking street later” during an anti-war demonstration did not intend to incite or produce immediate lawless action.<sup>33</sup>

The Court found that “at worst, it amounted to nothing more than advocacy of illegal action at some indefinite future time,” and that the man could therefore not be convicted under a state disorderly conduct statute.<sup>34</sup> The fact that the Court ruled in favor of the speaker despite the use of such strong and unequivocal language underscores the narrow construction that has traditionally been given to the incitement doctrine, and its dual requirements of likelihood and immediacy. Nonetheless, college administrations have been all too willing to abuse or ignore this jurisprudence, often using the term in policies in a colloquial manner.

For example:

- The University of California system’s “intolerance report form” encourages students to report instances of “hate speech,” defined as “any speech, gesture or conduct, writing, or display that may incite violence or prejudicial action against someone” based on their actual or perceived personal characteristic.<sup>35</sup>
- Western Illinois University bans public decorations in the residence halls that “are deemed to be racist, sexist, indecent, scandalous, illegal, inciting, or in any way oppressive in nature.”<sup>36</sup>
- Indiana State University explains that prohibited harassment can be expressed or implied, “creating and/or inciting a foreseeable hostile environment.”<sup>37</sup>

The paradigmatic example of incitement is a person standing on the steps of a courthouse in front of a torch-wielding mob and urging that mob to burn down the courthouse immediately. Misapplying the doctrine to encompass an opposing party’s reaction to speech they dislike converts the doctrine into an impermissible “heckler’s veto,” where violence threatened by those angry about particular speech is used as a reason to censor that speech. As the Supreme Court has observed, speech cannot be prohibited because it “might offend a hostile mob” or because it may prove “unpopular with bottle throwers.”<sup>30</sup>

The legal standard for incitement was announced in the Supreme Court’s decision in *Brandenburg v. Ohio*.<sup>31</sup> There, the Court held that the state may not “forbid or proscribe advocacy of the use of force or of law violation except where such advocacy is directed to inciting or producing imminent lawless action and is likely to incite or produce such action.”<sup>32</sup> This is an exacting standard, as evidenced by its application in subsequent cases.

**Nonetheless, college administrations have been all too willing to abuse or ignore this jurisprudence.**

investigates-fordham-over-broken-speech-promises-in-austin-tong-case.

<sup>28</sup> See, e.g., *Mission Statement*, FORDHAM UNIV. (Apr. 28, 2005), [fordham.edu/info/20057/about/2997/mission\\_statement](http://fordham.edu/info/20057/about/2997/mission_statement) (“Fordham strives for excellence in research and teaching, and guarantees the freedom of inquiry required by rigorous thinking and the quest for truth.”); *Demonstration Policy*, FORDHAM UNIV. STUDENT HANDBOOK, [fordham.edu/info/21684/university\\_regulations/3709/demonstration\\_policy](http://fordham.edu/info/21684/university_regulations/3709/demonstration_policy) (last visited Oct. 29, 2020) (“Each member of the University has a right to freely express their positions and to work for their acceptance whether they assent to or dissent from existing situations in the University or society.”); *Bias-Related Incidents and/or Hate Crimes*, FORDHAM UNIV. STUDENT HANDBOOK, [fordham.edu/info/21684/university\\_regulations/6566/bias-related\\_incidents\\_and\\_or\\_hate\\_crimes](http://fordham.edu/info/21684/university_regulations/6566/bias-related_incidents_and_or_hate_crimes) (last visited Oct. 29, 2020) (“[T]he University values freedom of expression and the open exchange of ideas. The expression of controversial ideas and differing views is a vital part of University discourse.”).

<sup>29</sup> Goldstein, *supra* note 27.

<sup>30</sup> *Forsyth Cty. v. Nationalist Movement*, 505 U.S. 123, 134–35 (1992).

<sup>31</sup> 395 U.S. 444 (1969).

<sup>32</sup> *Id.* at 447 (emphasis in original).

## Obscenity

The Supreme Court has held that obscene expression, to fall outside of the protection of the First Amendment, must “depict or describe sexual conduct” and must be “limited to works which, taken as a whole, appeal to the prurient interest in sex, which portray sexual conduct in a patently offensive way, and which, taken as a whole, do not have serious literary, artistic, political, or scientific value.”<sup>38</sup>

This is a narrow standard applicable only to certain highly graphic sexual material. It does not encompass profanity, even though profane words are often colloquially referred to as “obscenities.” In fact, the Supreme Court has explicitly held that profanity is constitutionally protected. In *Cohen v. California*, the defendant, Paul Robert Cohen, was convicted in California for wearing a jacket bearing the words “Fuck the Draft” in a courthouse.<sup>39</sup> The Supreme Court overturned Cohen’s conviction, holding that the message on his jacket, however vulgar, was protected speech.



Similarly, in *Papish v. Board of Curators of the University of Missouri*, the Court determined that a student’s expulsion for distributing a student newspaper containing an article titled “Motherfucker Acquitted” violated the First Amendment.<sup>40</sup> The Court wrote that

“the mere dissemination of ideas—no matter how offensive to good taste—on a state university campus may not be shut off in the name alone of ‘conventions of decency.’”<sup>41</sup>

Nonetheless, many colleges erroneously believe that they may lawfully prohibit profanity and vulgar expression. For example:

- Alabama A&M University bans “[i]ndecent, obscene, immoral behavior and/or profanity,” including “the use of obscene gestures” and “vulgar language.”<sup>42</sup>
- The University of Louisiana at Lafayette’s conduct code prohibits “[p]ublic [p]rofanity,” defined as “[p]rofanity or abusive or foul language directed toward a person or persons.”<sup>43</sup>
- Frostburg State University prohibits the placement of flyers in the residence halls “containing content that would be considered offensive to a reasonable person (e.g. nudity, obscenities, etc.).”<sup>44</sup>

<sup>38</sup> 414 U.S. 105 (1973).

<sup>39</sup> *Id.* at 108–09.

<sup>40</sup> *Campus Climate*, UNIV. OF CALIFORNIA, [ucsystems.ethicspointvp.com/custom/ucs\\_ccc/default.asp](https://ucsystems.ethicspointvp.com/custom/ucs_ccc/default.asp) (last visited Oct. 17, 2020).

<sup>41</sup> *Decorating Your Room*, RESIDENCE HALL STUDENT HANDBOOK at 18, [wiu.edu/student\\_services/housing/living\\_on\\_campus/pdf/ResidenceHallHandbook2020.pdf](https://wiu.edu/student_services/housing/living_on_campus/pdf/ResidenceHallHandbook2020.pdf) (last visited Oct. 17, 2020).

<sup>42</sup> *Misconduct against Persons*, CODE OF STUDENT CONDUCT, [indstate.edu/code-of-student-conduct/prohibited-conduct/against-persons](https://indstate.edu/code-of-student-conduct/prohibited-conduct/against-persons) (last visited Oct. 17, 2020).

<sup>43</sup> *Miller v. California*, 413 U.S. 15, 24 (1973).

<sup>44</sup> 403 U.S. 15 (1971).

<sup>45</sup> 410 U.S. 667 (1973).

<sup>46</sup> *Id.* at 670.

<sup>47</sup> *Code of Conduct Offenses and Sanctions*, A&A A&M Univ. Student Handbook (Revised 2019), [aamuedu/about/administrative-offices/student-affairs/student-handbook/\\_documents/aamu-student-handbook.pdf](https://aamuedu/about/administrative-offices/student-affairs/student-handbook/_documents/aamu-student-handbook.pdf).

## Harassment

Hostile environment harassment, properly defined, is not protected by the First Amendment. In the educational context, the Supreme Court has defined student-on-student (or peer) harassment as discriminatory, unwelcome, and targeted conduct that is “so severe, pervasive, and objectively offensive that it effectively bars the victim’s access to an educational opportunity or benefit.”<sup>45</sup>

This is not simply expression; it is conduct far beyond the protected speech that is too often deemed “harassment” on today’s college campus. For example, in *Davis*, the conduct found by the Court to constitute harassment was a months-long pattern of conduct including repeated attempts to touch the victim’s breasts and genitals, together with repeated sexually explicit comments directed at and about the victim.

For decades now, however, many colleges and universities have maintained policies defining harassment too broadly and prohibiting constitutionally protected speech. Years of Title IX enforcement by the Department of Education’s Office for Civil Rights (OCR) that neglected to fully protect First Amendment rights, including an unconstitutionally broad definition of sexual harassment promulgated by OCR itself,<sup>46</sup> led numerous colleges and universities to enact overly restrictive harassment policies in an effort to avoid an OCR investigation.

On May 6, 2020, the Department of Education published new Title IX regulations that adopted the Supreme Court’s peer harassment standard from *Davis*, taking effect August 14, 2020. The regulations and emerging trends in universities’ compliance are discussed in further detail in this report’s “Spotlight on: New Title IX Regulations” feature.

Although the full impact of the regulations remains to be seen as of this writing, we expect university policies on harassment to generally improve. However, even where policies reasonably track the Supreme Court’s standard from *Davis*, problems remain. Many policies define harassment narrowly, then proceed to provide a list of examples of prohibited conduct that do not necessarily meet that standard when

standing alone. Others provide multiple definitions of harassment, resulting in a policy scheme that is confusing for students and likely to have a chilling effect on expression.

Here are just a few examples of overly broad harassment policies:

- Northwestern University’s harassment policy states: “Examples of harassment include offensive jokes related to a protected class; . . . name calling related to a protected class,” and “mockery connected to a protected class.”<sup>47</sup>
- Portland State University’s policy defines sexual harassment as “unwelcome conduct of a sexual nature,” before labeling “sexual or derogatory comments” and “sending letters, notes, cartoons, emails, text or audio messages of a sexually suggestive nature” as examples of “inappropriate behavior.”<sup>48</sup>
- Furman University goes so far as to warn students that the university “may address conduct that, although it does not rise to the level of constituting Sexual Misconduct as defined by this Policy, is nevertheless offensive and/or unwanted conduct of a sexual nature.”<sup>49</sup>

These examples, along with many others, demonstrate that colleges and universities often fail to limit themselves to the narrow definition of harassment that is outside the realm of constitutional protection. Instead, they expand the term to prohibit broad categories of speech that do not even approach actionable harassment, despite similar policies having been struck down by federal courts years earlier.<sup>50</sup>

Having discussed the most common ways in which universities misuse the narrow exceptions to the First Amendment to prohibit protected expression, we now turn to the innumerable other types of university regulations that restrict free speech on their face. Such restrictions are generally found in several distinct types of policies.

<sup>43</sup> *Code of Student Conduct*, UNIV. OF LOUISIANA AT LAFAYETTE at 16 (last updated August 18, 2020), [studentrights.louisiana.edu/sites/studentrights/files/Code%20of%20Student%20Conduct%20Sept.20.pdf](http://studentrights.louisiana.edu/sites/studentrights/files/Code%20of%20Student%20Conduct%20Sept.20.pdf).

<sup>44</sup> *Residence Life Office Residence Hall Posting Guidelines*, FROSTBURG ST. UNIV. [frostdburg.edu/student-life/residence-life/residence-life-office/ro-posting-policy.pdf](http://frostdburg.edu/student-life/residence-life/residence-life-office/ro-posting-policy.pdf) (last visited Oct. 13, 2020).

<sup>45</sup> *Davis v. Monroe County Board of Education*, 526 U.S. 629, 633 (1999).

<sup>46</sup> See Letter from Shaheena Simons and Damon Martinez, U.S. Dep’t of Justice to Robert G. Frank, President, Univ. of N.M. (Apr. 22, 2016), [available.atjustice.gov/opa/file/843901/download](http://available.atjustice.gov/opa/file/843901/download); Letter from Anurima Bhargava, Chief, Civil Rights Div., U.S. Dep’t of Justice, and Gary Jackson, Reg’l Dir., Office for Civil Rights, U.S. Dep’t of Educ., to Royce Engstrom, President, Univ. of Mont. and Lucy France, Univ. Counsel, Univ. of Mont. (May 9, 2013), [available.atjustice.gov/opa/documents/um-ltr-findings.pdf](http://available.atjustice.gov/opa/documents/um-ltr-findings.pdf).

<sup>47</sup> *Policy on Discrimination & Harassment*, NORTHWESTERN UNIV. (Sept. 1, 2019), [northwestern.edu/equity/documents/discrimination-harassment-policy-resources-procedures-final.pdf](http://northwestern.edu/equity/documents/discrimination-harassment-policy-resources-procedures-final.pdf).

<sup>48</sup> *Prohibited Discrimination & Harassment Policy*, PORTLAND ST. UNIV. (Sept. 28, 2017), [docs.google.com/document/d/e/2PACX-1vRBvO64ghsJ4GeuDWaEvzmv9r95JmZJDuEP9JqX3LwdRjcb9DVWRVYtC3QA6W8Jenhp-txbfpCRWg/pub](https://docs.google.com/document/d/e/2PACX-1vRBvO64ghsJ4GeuDWaEvzmv9r95JmZJDuEP9JqX3LwdRjcb9DVWRVYtC3QA6W8Jenhp-txbfpCRWg/pub).

<sup>49</sup> *Sexual Misconduct Policy*, FURMAN UNIV. at 1 (Aug. 14, 2020), [furman.edu/title-ix/wp-content/uploads/sites/108/2020/09/Furman-2020-21-Sexual-Misconduct-Policy-9.14.20.pdf](http://furman.edu/title-ix/wp-content/uploads/sites/108/2020/09/Furman-2020-21-Sexual-Misconduct-Policy-9.14.20.pdf).

<sup>50</sup> See, e.g., *DeJohn v. Temple Univ.*, 577 F.2d 201 (3d Cir. 2008) (holding that Temple University’s sexual harassment policy was Unconstitutionally Overbroad); *See v. Univ. of Mich.*, 855 F.2d 1188 (6th Cir. 1989) (holding that

## Anti-Bullying Policies

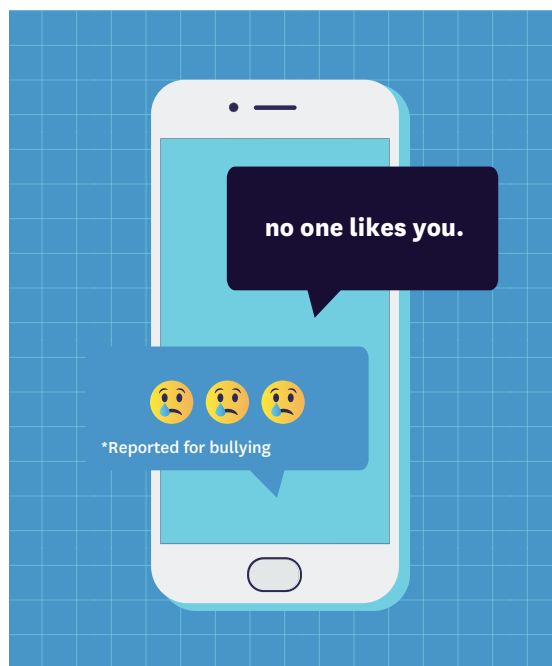
Over the past decade, FIRE has found that numerous colleges and universities have adopted policies on “bullying” and “cyberbullying.” On October 26, 2010, OCR issued a letter on the topic of bullying, reminding educational institutions that they must address actionable harassment, but also acknowledging that “[s]ome conduct alleged to be harassment may implicate the First Amendment rights to free speech or expression.” For such situations, OCR’s letter refers readers back to the 2003 “Dear Colleague” letter stating that harassment is conduct that goes far beyond merely offensive speech and expression. However, because it is primarily focused on bullying in the K–12 setting, the 2010 letter also urges an *in loco parentis* approach that is inappropriate in the college setting, where students are overwhelmingly adults.<sup>53</sup>

Court decisions and other guidance regarding student speech in the K–12 setting often “trickle up” to the collegiate setting, and indeed, FIRE has come across numerous university policies prohibiting bullying in a problematic manner. For example:

- Western Michigan University defines bullying as “[r]epeated and/or severe aggressive behavior likely to intimidate or intentionally hurt, control or diminish another person, physically or mentally.”<sup>54</sup> The policy goes on to list as examples of bullying “creating web pages with a negative focus; posting insults on social networking sites; and/or spreading rumors with malicious intent.”<sup>55</sup>
- Howard University’s student handbook defines bullying as “[u]nwanted, aggressive and/or hostile behavior” that involves a power imbalance and is “intended to humiliate” another individual or group. The policy makes clear that bullying “can be one single act” and states that examples include “spreading rumors” and “marginalizing and/or excluding someone from a group, event or activity.”<sup>57</sup>
- At Towson University, “[c]yberbullying” is defined as conduct that has the effect of “intimidating; humiliating; harassing; harming; embarrassing; or damaging person(s) or organization(s).”<sup>58</sup>

But as courts have held in rulings spanning decades, speech cannot be prohibited simply because someone else finds it offensive, even deeply so.<sup>59</sup> Offensive speech, if it does not rise to the level of harassment or one of the other narrow categories of unprotected speech and conduct, is entitled to constitutional protection (and, accordingly, to protection at private institutions that claim to uphold the right to free speech).

**FIRE has come across numerous university policies prohibiting bullying in a problematic manner.**



University of Michigan’s discriminatory harassment policy was unconstitutionally broad); *Booher v. N. Ky. Univ. Bd. of Regents*, No. 2:96-CV-135, 1998 U.S. Dist. LEXIS 11404 (E.D. Ky. July 21, 1998) (holding that Northern Kentucky University’s sexual harassment policy was unconstitutionally broad). The United States Court of Appeals for the Fifth Circuit recently questioned whether purely speech harassment claims could ever meet the *Davis* standard, stating: “Whether *Davis* may constitutionally support purely verbal harassment claims, much less speech-related proscriptions outside Title IX protected categories has not been decided by the Supreme Court or this court and seems self-evidently dubious.” *Speech First, Inc. v. Fennes*, No. 19-50529, n. 16 at 29\* (5th Cir. 2020).

<sup>53</sup> “Dear Colleague” Letter from Russlynn Ali, Assistant Sec’y for Civil Rights, U.S. Dep’t of Educ. (Oct. 26, 2010), available at [ed.gov/about/offices/list/ocr/letters/colleague-201010.html](http://ed.gov/about/offices/list/ocr/letters/colleague-201010.html).

<sup>54</sup> “In the place of parents.”

<sup>55</sup> See generally *McCauley v. Univ. of the V.I.*, 618 F.3d 243–44 (3d Cir. 2010) (“[T]he pedagogical missions of public universities and public elementary and high schools are undeniably different. While both seek to impart knowledge, the former encourages inquiry and challenging prior assumptions whereas the latter prioritizes the inculcation of societal values. . . . The idea that public universities exercise strict control over students via an *in loco parentis* relationship has decayed to the point of irrelevance.”).

<sup>56</sup> Student Code, WESTERN MICHIGAN UNIV., at 15 (last updated Sept. 2020), <http://www.wmich.edu/sites/default/files/academics/1499/2000%20Student%20Code%20October%202020.pdf>.



## Policies on Tolerance, Respect, and Civility

Many schools invoke laudable goals like respect and civility to justify policies that violate students' free speech rights. While a university has every right to promote a tolerant and respectful atmosphere on campus, a university that claims to respect free speech must not limit discourse to only the inoffensive and respectful. And although pleas for civility and respect are often initially framed as requests, many schools have speech codes that effectively turn those requests into requirements.

For example:

- Boston College's information technology use policy states: "Communications from members of the University community are to reflect mutual respect, civility, and other moral standards." The policy specifically bans "[t]he use of obscene or intolerant language, and the use of similarly offensive graphic or video images," and notes that "[t]he determination of what is obscene, offensive, or intolerant is within the sole discretion of the University."<sup>60</sup>
- At Boise State University, students are informed that "[m]embership in the campus community is a privilege and requires its members to conduct themselves ethically with integrity and civility," which includes "adhere[nce] to the principles of civil discourse."<sup>61</sup>
- Georgetown University bans "[i]ncivility," broadly defined as "[e]ngaging in behavior, either through language or actions, which disrespects another individual."<sup>62</sup>

While respect and civility may seem uncontroversial, most uncivil or disrespectful speech is protected by the First Amendment,<sup>63</sup> and is indeed sometimes of great political and social significance. Some of the expression employed in the civil rights movement of the 1950s and '60s, for example, would violate campus civility codes today. Colleges and universities may encourage civility, but public universities—and those private universities that purport to respect students' fundamental free speech rights—may not require it or threaten mere incivility with disciplinary action.



## Internet Usage Policies

University policies regulating online expression, while perhaps appearing to be narrow, can have a significant impact on students' and faculty members' free speech rights, given the prevalence of online communication on today's college campuses.

Examples of impermissibly restrictive Internet usage policies include the following:

- Drexel University calls the use of "offensive language" an abuse of email privileges that could result in "de-activation of the account (for minor first offenses) through university judicial action or referral to law enforcement authorities."<sup>64</sup>
- At Carleton College, students are prohibited from "distributing material which is demeaning."<sup>65</sup> Carleton's policy also bans using information technology resources for "political purposes."
- The College of the Holy Cross informs students that "[o]bscene or intolerant language, as well as offensive images" are prohibited, and makes clear "[t]he determination of what is obscene, offensive or intolerant is within the sole discretion of the College."<sup>67</sup>

<sup>55</sup> *Id.*

<sup>56</sup> *Howard University Student Handbook*, HOWARD UNIV., studentaffairs.howard.edu/sites/studentaffairs.howard.edu/files/2020-07/howard-university-student-handbook-2019-2020-REM.pdf (last visited Oct. 13, 2020).

<sup>57</sup> *Id.*

<sup>58</sup> *Code of Student Conduct*, TOWSON UNIV. at 4 (Aug. 12, 2020), towson.edu/studentaffairs/policies/documents/code\_of\_student\_conduct.pdf.

<sup>59</sup> See *Texas v. Johnson*, 491 U.S. 397, 414 (1989) ("If there is a bedrock principle underlying the First Amendment, it is that the government may not prohibit the expression of an idea simply because society finds the idea itself offensive or disagreeable"); see also *Saxe v. State Coll. Area Sch. Dist.*, 240 F.3d 200, 206 (3d Cir. 2001) (holding that there is "no question that the free speech clause protects a wide variety of speech that listeners may consider deeply offensive. . . ."); *Bair v. Shippensburg Univ.*, 280 F. Supp. 2d 357, 369 (M.D. Pa. 2003) ("[R]egulations that prohibit speech on the basis of listener reaction alone are unconstitutional both in the public high school and university settings"); *Doe v. Univ. of Mich.*, 721 F. Supp. 852, 863 (E.D. Mich. 1989) ("Nor could the University proscribe speech simply because it was found to be offensive, even gravely so, by large numbers of people").

<sup>60</sup> *Use of University Technological and Information Resources*, BOSTON COLLEGE POLICIES AND PROCEDURES at 4 (last updated Mar. 20, 2004), bc.edu/content/dm/files/offices/policies/pdf/policies/1100-025.pdf.

<sup>61</sup> *Statement of Shared Values*, BOISE STATE UNIV. OFFICE OF THE PRESIDENT, boise.edu/offices/president/values/statement-of-shared-values (last visited Oct. 13, 2020).

As campuses shifted to online learning during the COVID-19 pandemic this year, the concerns presented by problematic speech codes governing online expression were amplified. Indeed, FIRE recently released a report focusing on the recent surge in online censorship.<sup>68</sup>

To take one recent example, at Stockton University, a student faced a litany of charges, including “Disruptive Behavior,” “Discrimination,” and “Harassment,” over using a photograph of President Donald Trump as his Zoom background and posting a political message on Facebook.<sup>69</sup> Stockton’s incident report explained that the background made members of his class feel “offended, disrespected, and taunted.”<sup>70</sup>

Just as speech that occurs in the public square may not be sanctioned merely because it has made others feel “offended, disrespected, and taunted,” online speech may not be restricted on those bases alone.

## Policies on Bias and Hate Speech

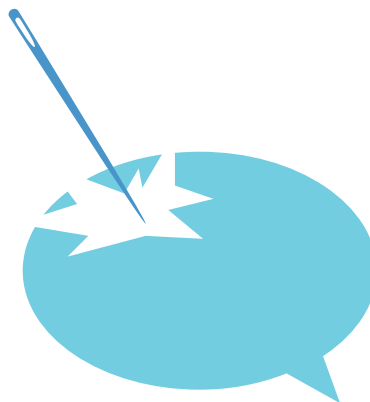
In recent years, colleges and universities around the country have instituted policies and procedures specifically aimed at eliminating “bias” and “hate speech” on campus.<sup>71</sup> These sets of policies and procedures, frequently termed “Bias Reporting Protocols” or “Bias Incident Protocols,” often include bans on protected expression. For example:

- Grinnell College defines a “bias-motivated incident” as “an expression of hostility toward, a person, group, or property thereof” because of an individual or group’s identifying or perceived characteristic. The College warns: “Since these behaviors are not reflective of our Community Standards, student(s) found responsible for bias-related charges may face outcomes up to and including suspension, dismissal or degree withdrawal.”<sup>72</sup>
- Bates College lists the following as examples of bias incidents: “hate speech,” “sexist jokes or cartoons,” and “disparaging remarks on social media sites.” Students are told to report

such incidents in order to assist the college in “addressing behaviors that are antithetical to our community values.”<sup>73</sup>

- DePauw University states: “Not all bias incidents constitute harassment under these policies. However, even if a bias incident does not constitute harassment, we can and will respond to address hurtful behavior and to support the targeted individual or group.”<sup>74</sup>

While speech or expression that is based on a speaker’s bias may be subjectively offensive, it is protected under First Amendment standards unless it rises to the level of unlawful conduct like harassment. Some bias reporting policies acknowledge the distinction between unlawful conduct, like hate crimes or harassment, and bias-related incidents. However, many of these policies nonetheless encourage students to report such broadly defined bias incidents, and reserve the right to take action against incidents that do not constitute unlawful behavior or unprotected speech.



Bias incident protocols also often infringe on students’ right to due process by allowing for anonymous reporting that denies students the right to confront their accusers. Moreover, universities are often heavily invested in these bias incident policies, having set up extensive regulatory frameworks and response protocols devoted solely to addressing them.

Although some bias incident protocols do not include a separate enforcement mechanism, the mere threat

<sup>62</sup> *Code of Student Conduct*, GEORGETOWN UNIV. DIVISION OF STUDENT AFFAIRS at 13 (last updated fall 2018), [studentconduct.georgetown.edu/code-of-student-conduct](http://studentconduct.georgetown.edu/code-of-student-conduct).

<sup>63</sup> See, e.g., *Coll. Republicans at S.F. St. Univ. v. Reed*, 523 F. Supp. 2d 1005, at 23\* (N.D. Cal. 2007) (enjoining enforcement of university civility policy because “there is a substantial risk that the civility requirement will inhibit or deter use of the forms and means of communication that, to many speakers in circumstances of the greatest First Amendment sensitivity, will be the most valued and the most effective.”).

<sup>64</sup> *Email Policy*, DREXEL UNIV. INFORMATION TECHNOLOGY (last revised July 1, 2014), [drexel.edu/it/about/policies/policies/07-Email](http://drexel.edu/it/about/policies/policies/07-Email).

<sup>65</sup> *Academic User Agreement, INFORMATION TECHNOLOGY SERVICES* (last updated Apr. 13, 2020), [apps.carleton.edu/campus/its/policies/agreement](http://apps.carleton.edu/campus/its/policies/agreement).

<sup>66</sup> *Id.*

<sup>67</sup> *Use of Information Technology Services, COLLEGE OF THE HOLY CROSS POLICIES AND PROCEDURES MANUAL* (Dec. 16, 2015), [holycross.edu/sites/default/files/files/policyprocedure/its/350000-002\\_use\\_of\\_information\\_technology\\_services\\_2015\\_accepted.pdf](http://holycross.edu/sites/default/files/files/policyprocedure/its/350000-002_use_of_information_technology_services_2015_accepted.pdf).

<sup>68</sup> *Memory-holed: Universities and Internet Speech*, FOUND. FOR INDIVIDUAL RIGHTS IN EDUC., [theffire.org/research/publications/miscellaneous-publications/memory-holed-universities-and-internet-speech](http://theffire.org/research/publications/miscellaneous-publications/memory-holed-universities-and-internet-speech).

<sup>69</sup> See Letter from Zachary Greenberg, Program Officer, Individual Rights Defense Program, Found. for Individual Rights in Educ., to Harvey Keshishian, President, Stockton Univ. (Aug. 1, 2020), [theffire.org/letter-to-stockton-](http://theffire.org/letter-to-stockton-)

of a bias investigation will likely be sufficient to chill speech on controversial issues. Indeed, the United States Court of Appeals for the Sixth Circuit recently held that, even though it lacked the power to punish students independently, the University of Michigan's former "Bias Response Team" policy was likely to chill the speech of students because "the invitation from the Response Team to meet could carry an implicit threat of consequence should a student decline the invitation."<sup>75</sup> As a part of a settlement agreement,<sup>76</sup> the university replaced its Bias Response Team with a "Campus Climate Support" program. The new policy makes its purpose—to provide support, rather than to investigate or punish protected speech—clear: "CCS is not a disciplinary body, cannot impose discipline, and does not require participation in any aspect of CCS's work."<sup>77</sup>

Overbroad bias reporting policies must be revised so that they narrowly target unlawful conduct, or to make clear they exist for purposes of providing support for affected individuals.

## Policies Governing Speakers, Demonstrations, and Rallies

Universities may enact reasonable, narrowly tailored "time, place, and manner" restrictions that prevent demonstrations and other expressive activities from unduly interfering with the educational process.<sup>78</sup> They may not, however, regulate speakers and demonstrations on the basis of content or viewpoint, nor may they maintain regulations that burden substantially more speech than is necessary to maintain an environment conducive to education. Such regulations can take several forms, as discussed in the sections below.

## Security Fee Policies

In recent years, FIRE has seen a number of colleges and universities hamper—whether intentionally or just through a misunderstanding of the law—the invitation

of controversial campus speakers by levying additional security costs on the sponsoring student organizations.

The Supreme Court addressed a very similar issue in *Forsyth County v. Nationalist Movement*, where it struck down an ordinance in Georgia that permitted the local government to set varying fees for events based upon how much police protection the event would need.<sup>79</sup> Invalidating the ordinance, the Court wrote that "[t]he fee assessed will depend on the administrator's measure of the amount of hostility likely to be created by the speech based on its content. Those wishing to express views unpopular with bottle throwers, for example, may have to pay more for their permit."<sup>80</sup> Deciding that such a determination required county administrators to "examine the content of the message that is conveyed," the Court wrote that "[l]isteners' reaction to speech is not a content-neutral basis for regulation. . . . Speech cannot be financially burdened, any more than it can be punished or banned, simply because it might offend a hostile mob."<sup>81</sup>

Despite this precedent, the impermissible use of security fees to burden controversial speech is all too common on university campuses:

- At Evergreen State College, factors that are considered in evaluating risk and determining security needs include the "topic" of the event and the "history of the performer."<sup>82</sup> If extra security is deemed necessary by the university, "this additional cost will be the responsibility of the event sponsor."<sup>83</sup>
- Bridgewater State University informs students that users of facilities will be billed for "extraordinary staff support needs arising from the particular nature of the event."<sup>84</sup>
- The State University of New York – New Paltz chillingly states: "Where a controversial speaker is likely to engender demonstrations from other student groups, the sponsoring organization must recognize the rights of other groups and consider the impact of inviting each speaker on the orderly and lawful functioning of the College."

university-august-7-2020.

<sup>70</sup> *Id.*

<sup>71</sup> See generally *Bias Response Team Report 2017*, FOUND. FOR INDIVIDUAL RIGHTS IN EDUC., [thefire.org/research/publications/bias-response-team-report-2017](http://thefire.org/research/publications/bias-response-team-report-2017).

<sup>72</sup> *Campus Life Policies*, GRINNELL COLLEGE 2019-2020 STUDENT HANDBOOK, [catalog.grinnell.edu/content.php?catoid=12&navoid=2536#Hate\\_Crimes\\_and\\_Bias-Motivated\\_Incidents\\_Policy](http://catalog.grinnell.edu/content.php?catoid=12&navoid=2536#Hate_Crimes_and_Bias-Motivated_Incidents_Policy) (last visited Oct. 16, 2020).

<sup>73</sup> *Bias Incidents & Hate Crimes*, BATES OFFICE OF EQUITY AND INCLUSION, [bates.edu/equity-inclusion/bias-incidents-hate-crimes](http://bates.edu/equity-inclusion/bias-incidents-hate-crimes) (last visited Oct. 16, 2020).

<sup>74</sup> *What is a Bias Incident?*, DEPAUW UNIV. BIAS INCIDENT RESOURCES, [depauw.edu/studentacademiclife/campus-safety/bias-incident-resources/investigation-follow-up](http://depauw.edu/studentacademiclife/campus-safety/bias-incident-resources/investigation-follow-up) (last visited Oct. 16, 2020).

<sup>75</sup> *Speech First, Inc. v. Schlissel*, 939 F.3d 756 (6th Cir. 2019). Quoting *Schlissel*, the United States Court of Appeals for the Fifth Circuit recently found a university bias reporting team's practice of making referrals to university disciplinary bodies "sufficiently proscriptive to objectively chill student speech." *Speech First, Inc. v. Fenves*, No. 19-50529, at 22\* (5th Cir. 2020).

<sup>76</sup> *Speech First v. U of M Settlement Agreement*, *SPEECH FIRST v. UNIV. OF MICHIGAN CASE* (Oct. 28, 2019), [speechfirst.org/court-battles/speech-first-v.-u.-of-m-settlement-agreement](http://speechfirst.org/court-battles/speech-first-v.-u.-of-m-settlement-agreement).

<sup>77</sup> *Campus Climate Support*, UNIV. OF MICHIGAN DEAN OF STUDENTS, [deanofstudents.umich.edu/campus-climate-support](http://deanofstudents.umich.edu/campus-climate-support) (last visited Oct. 29, 2020).

## Prior Restraints

The Supreme Court has held that “[i]t is offensive—not only to the values protected by the First Amendment, but to the very notion of a free society—that in the context of everyday public discourse a citizen must first inform the government of her desire to speak to her neighbors and then obtain a permit to do so.” Yet many colleges and universities enforce prior restraints, requiring students and student organizations to register their expressive activities well in advance and, often, to obtain administrative approval for those activities. For example:

- Virginia State University’s student handbook prohibits “[u]nauthorized assembly, demonstrations, or acts of picketing of any kind” as “Disorderly Conduct,” explaining that all “assemblies, demonstrations, and similar acts must have prior approval and be registered.”<sup>86</sup>
- Students wishing to conduct a demonstration at Rensselaer Polytechnic Institute must submit an application to the dean of students’ office “at least seven (7) days prior to the proposed demonstration date” for approval.<sup>87</sup>
- Students on Kean University’s campus can’t even hand out flyers without “submitting a formal request online . . . at least five (5) business days prior to the requested use.”<sup>88</sup>

## Free Speech Zone Policies

Of the 478 schools surveyed for this report, 34 institutions (7.1%) enforce “free speech zone” policies—policies limiting student demonstrations and other expressive activities to small and often out-of-the-way areas on campus.<sup>89</sup> This number represents a significant improvement over the course of the past decade: a 2013 FIRE survey of the institutions covered in this report found that 16.4%—over double the percentage today—maintained such policies.<sup>90</sup> This positive shift can be traced in large part to FIRE’s litigation and legislative efforts.

Over the past several years, free speech zones have

repeatedly been struck down by courts or voluntarily revised by colleges as part of settlements to lawsuits brought by students. FIRE’s Stand Up For Speech Litigation Project has mounted successful challenges to free speech zone policies at eight colleges.<sup>91</sup> Most recently, the Los Angeles Community College District agreed to settle a lawsuit brought after an administrator told a student his rights were restricted to a tiny free speech zone on the Los Angeles Pierce College campus. As the largest community college district in the country, this victory for the Stand Up For Speech Litigation Project restored free speech rights to roughly 150,000 students.<sup>92</sup>

Additionally, state legislatures have continued to take action to prohibit public colleges and universities from maintaining free speech zones. Currently, seventeen states have enacted laws prohibiting these restrictive policies: Virginia, Missouri, Arizona, Kentucky, Colorado, Utah, North Carolina, Tennessee, Florida, Georgia, Louisiana, Arkansas, South Dakota, Iowa, Alabama, Oklahoma, and Texas. In doing so, several states utilized FIRE’s model legislation.

Due to FIRE’s efforts in litigation and legislation, as well as our continued policy reform work, free speech zones have declined dramatically over the past decade. In spite of this progress, too many universities still maintain free speech zones. Despite being inconsistent with the First Amendment, free speech zones are more common at public universities than at private universities: 8.1% of public universities surveyed maintain free speech zones, while just 3.8% of private universities that promise their students free speech rights do.

Examples of current free speech zone policies include the following:

- Eastern Illinois University restricts the distribution of written materials to a single area on campus, which it accurately and candidly calls the “Free Speech Zone.”<sup>93</sup> The policy also provides that the university and registered student organizations may reserve this area for events, presenting the

<sup>86</sup> See *Ward v. Rock Against Racism*, 491 U.S. 781, 791 (1989).

<sup>87</sup> Forsyth, 505 U.S. 123.

<sup>88</sup> *Id.* at 134.

<sup>89</sup> *Id.* at 134–35 (emphasis added).

<sup>90</sup> *Event Security and Safety*, EVERGREEN ST. COLLEGE POLICIES AND PROCEDURES, evergreen.edu/policy/eventsecurityandsafety (last visited Oct. 13, 2020).

<sup>91</sup> *Id.*

<sup>92</sup> *Free Speech and Demonstration Policy*, BRIDGEWATER ST. UNIV. (reviewed Sept. 2017), handbook.bridgew.edu/sites/handbook/files/2019-08/BSU\_Free\_Speech\_and\_Demonstration\_Policy\_Revised\_2017.pdf.

<sup>93</sup> *Watchtower Bible and Tract Society of NY, Inc. v. Village of Stratton*, 536 U.S. 150, 165–66 (2002).

<sup>94</sup> *Disorderly Conduct*, VIRGINIA ST. UNIV. STUDENT HANDBOOK at 88, vsu.edu/files/docs/student-activities/student-handbook.pdf (last visited Oct. 16, 2020).

<sup>95</sup> *Rules for Maintenance of Public Order*, RENSSELAER HANDBOOK OF STUDENT RIGHTS AND RESPONSIBILITIES at 88 (last rev. Aug. 21, 2020), <http://www.howson.com/c/28el2vul1mq8gela68v6uk3vhtc29f>.

<sup>96</sup> *Distribution of Literature Policy*, KEAN UNIV. POLICIES, [www.kean.edu/sites/policies/policies/distribution-literature-policy](http://www.kean.edu/sites/policies/policies/distribution-literature-policy) (last visited Oct. 16, 2020).

concern that other students wishing to hand out flyers may not be able to do so if this area has been previously reserved.<sup>94</sup>

- The University of California – Riverside provides that all persons may use “[a]reas open to the public generally” for expressive activity, but those areas are defined exceedingly narrowly as “the outdoor paved walkways on the campus.”<sup>95</sup> If an activity is “pre-advertised” or can be expected to attract a crowd of over 25 people, it is limited to either “the Tower Mall or Speaker’s Mound area.”<sup>96</sup>
- At Vanderbilt University, students may only hand out written materials “on Rand Terrace or outside the building in which a meeting has been scheduled by another organization, if the distributors position themselves twenty feet from the entrance and so as to avoid restricting access.”<sup>97</sup>

Although free speech zone policies are indeed being steadily revised across the country, they continue to pose problems for students’ expressive activities. country, they continue to pose problems for students’ expressive activities.

<sup>94</sup> See Appendix D for a full list of schools with free speech zone policies.

<sup>95</sup> *Infographic: Free Speech Zones on America’s Campuses* (2013), [thefire.org/infographic-free-speech-zones-on-americas-campuses-2](http://thefire.org/infographic-free-speech-zones-on-americas-campuses-2).

<sup>96</sup> For more information about FIRE’s Stand Up for Speech Litigation Project and Million Voices campaign, see [standupforspeech.com](http://standupforspeech.com).

<sup>97</sup> Pierce College Press Release, *supra* note 13.

<sup>98</sup> #138.1 - *Posting and Distribution of Materials*, EASTERN ILLINOIS UNIV. INTERNAL GOVERNING POLICIES (July 27, 2020), [castle.eiu.edu/-auditing/138\\_1.php](http://castle.eiu.edu/-auditing/138_1.php).

<sup>99</sup> *Id.*

<sup>100</sup> *Speech and Advocacy*, UNIV. OF CALIFORNIA RIVERSIDE (Sept. 15, 1992), [fboapps.ucr.edu/policies/index.php?path=printPolicies.php&policy=700-70](http://fboapps.ucr.edu/policies/index.php?path=printPolicies.php&policy=700-70).

<sup>101</sup> *Id.*

<sup>102</sup> *Freedom of Expression*, VANDERBILT UNIV. STUDENT HANDBOOK, [vanderbilt.edu/student\\_handbook/student-engagement/#freedom-of-expression](http://vanderbilt.edu/student_handbook/student-engagement/#freedom-of-expression) (last visited Oct. 13, 2020).

# WHAT CAN BE DONE?

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The good news is that the types of restrictions discussed in this report can be reformed. Students and faculty members can be tremendously effective advocates for change when they are aware of their expressive rights and willing to engage administrators in their defense. FIRE provides a number of resources to assist advocates and administrators in revising speech codes, including our Model Code of Student Conduct.<sup>98</sup> The Model Code includes provisions regarding prohibited conduct that would all earn green light ratings, as well as student conduct procedures and procedural safeguards that comply with the Department of Education's recent Title IX regulations.

Unconstitutional policies also can be defeated in court, especially at public universities, where speech codes have been struck down in federal courts across the country. Many more such policies have been revised in favor of free speech as the result of legal settlements.

Any speech code in force at a public university is vulnerable to a constitutional challenge. Moreover, as speech codes are consistently defeated in court, administrators cannot credibly argue that they are unaware of the law, which means that they may be held personally liable when they are responsible for their schools' violations of constitutional rights.<sup>99</sup>

The suppression of free speech at institutions of higher education is a matter of national concern. But, by working together with universities to revise restrictive speech codes and to reaffirm commitments to free expression, we can continue to make strides toward campuses that truly embody the "marketplace of ideas" that such institutions are meant to be in our society.

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**Public exposure is also critical to defeating speech codes, since universities are often unwilling to defend their speech codes in the face of public criticism.**

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<sup>98</sup> Model Code, FOUND. FOR INDIVIDUAL RIGHTS IN EDUC. (May 28, 2020), [thefire.org/legal/procedural-advocacy/model-code](https://thefire.org/legal/procedural-advocacy/model-code). For other resources regarding policy reform, see [thefire.org/resources/fires-speech-code-resources](https://thefire.org/resources/fires-speech-code-resources).

<sup>99</sup> See, e.g., Marieke Tuthill Beck-Coon, *FIRE lawsuit against Iowa State University administrators ends with nearly \$1 million in damages and fees*, FOUND. FOR INDIVIDUAL RIGHTS IN EDUC. (Mar. 23, 2018) [thefire.org/fire-lawsuit-against-iowa-state-university-administrators-ends-with-nearly-1-million-in-damages-and-fees](https://thefire.org/fire-lawsuit-against-iowa-state-university-administrators-ends-with-nearly-1-million-in-damages-and-fees). See also Azhar Majeed, *Putting Their Money Where Their Mouth Is: The Case for Denying Qualified Immunity to University Administrators for Violating Students' Speech Rights*, 8 CARDOZO PUB. L., POL'Y & ETHICS J. 3, 515 (2010).

# Spotlight On: New Title IX Regulations

Conduct that constitutes hostile environment harassment, as legally defined, isn't protected by the First Amendment, but colleges all too often miss the mark when drafting harassment policies. In fact, harassment policies earn FIRE's worst, red light rating more frequently than any other type of policy in the Spotlight database, with 68 schools currently maintaining a policy that earns the rating.<sup>100</sup>

In *Davis v. Monroe County Board of Education*, the Supreme Court defined student-on-student (or peer) harassment in the educational setting as discriminatory, unwelcome conduct that is "so severe, pervasive, and objectively offensive that it effectively bars the victim's access to an educational opportunity or benefit."<sup>101</sup> In other words, harassment is extreme and repetitive behavior—behavior so serious that it would interfere with a reasonable person's ability to receive their education. However, most colleges have adopted a broader standard, putting protected speech at risk of punishment.

To understand why universities so commonly fail to define harassment properly, it helps to take a look back through the past decade of Title IX enforcement.

In 2013, the U.S. Department of Education's Office for Civil Rights (OCR) and the Department of Justice issued a joint findings letter announcing a resolution agreement with the University of Montana, following an investigation into the university's Title IX policies and practices.<sup>102</sup> The letter described this agreement as "a blueprint for colleges and universities throughout the country to protect students from sexual harassment and assault," and defined sexual harassment as "any unwelcome conduct of a sexual nature," including "verbal conduct."<sup>103</sup>

Under this broad, "blueprint" definition of sexual harassment, which fails to incorporate the critical

"severe, pervasive, and objectively offensive" components from the *Davis* standard, a single instance of subjectively offensive verbal conduct (i.e., speech, such as an off-color joke) could be considered punishable harassment.

OCR later backed away from the term "blueprint" in a letter to FIRE, in which it explained that "the agreement in the Montana case represents the resolution of that particular case and not OCR or DOJ policy,"<sup>104</sup> but the damage caused by the promotion of this definition had already been done. Many universities across the country had adopted it as their controlling standard for peer harassment, or had added it to existing policies, presenting students with a confusing array of definitions at a single school.

After years of pushback from FIRE and other civil liberties groups, OCR finally reversed course. On May 6, 2020, the agency announced new regulations that, among other important reforms regarding procedural safeguards, adopt the standard from *Davis* for Title IX sexual harassment. Those regulations took effect August 14, 2020.<sup>105</sup>

The colleges and universities analyzed in this report were reviewed incrementally over the course of the past year, from October 2019 to September 2020. Thus, we have only seen the impact of the regulations on schools that were updated since they went into effect. However, we have already identified a few trends in how schools have responded to the regulations.

First, some schools have missed the effective date of the regulations entirely. For example, Murray State University notes that the revision of its "Sexual Harassment Policy" is pending final approval in December 2020 by its board of regents.<sup>106</sup> Most universities have a process for expediting the adoption of a policy on an interim basis, but evidently 100 days

<sup>100</sup> FIRE's Spotlight Database Search Results, FOUND. FOR INDIVIDUAL RIGHTS IN EDUC., [thefire.org/resources/spotlight/?x=&speech\\_code=Red&y=&institution\\_type=&speech\\_code\\_advanced=Red&y\\_advanced=&statement%5B%5D=804#search-results](https://thefire.org/resources/spotlight/?x=&speech_code=Red&y=&institution_type=&speech_code_advanced=Red&y_advanced=&statement%5B%5D=804#search-results) (last visited Oct. 29, 2020).

<sup>101</sup> 526 U.S. 629, 633 (1999).

<sup>102</sup> U.S. Dep't of Educ., Dear Colleague Letter from Gerald A. Reynolds, Assistant Sec'y for Civil Rights (July 28, 2003), <https://www2.ed.gov/about/offices/list/ocr/firstamend.html>.

<sup>103</sup> *Id.*

<sup>104</sup> Letter from Catherine E. Lhamon, Assistant Secretary for Civil Rights, U.S. Department of Education, to Greg Lukianoff, President, Foundation for Individual Rights in Education (Nov. 14, 2013), available at [thefire.org/letter-from-department-of-education-office-for-civil-rights-assistant-secretary-catherine-e-lhamon-to-fire](https://thefire.org/letter-from-department-of-education-office-for-civil-rights-assistant-secretary-catherine-e-lhamon-to-fire).

<sup>105</sup> Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance, 85 Fed. Reg. 30,026 (May 19, 2020) (to be codified at 34 C.F.R. pt. 106).

<sup>106</sup> *Sexual Harassment Policy*, MURRAY ST. UNIV. (last updated May 1, 2017), [murraystate.edu/headermenu/administration/OfficeOfInstitutionalDiversityEquityandAccess/pdf/sexualharassmentpolicy.pdf](https://murraystate.edu/headermenu/administration/OfficeOfInstitutionalDiversityEquityandAccess/pdf/sexualharassmentpolicy.pdf).

<sup>107</sup> See Title IX, OFFICE OF INSTITUTIONAL DIVERSITY, EQUITY AND ACCESS, [murraystate.edu/headermenu/administration/titleix/index.aspx](https://murraystate.edu/headermenu/administration/titleix/index.aspx) (last visited Oct. 20, 2020).

<sup>108</sup> The regulations note that "inappropriate or illegal behavior may be addressed by a recipient even if the conduct clearly does not meet the *Davis* standard or otherwise constitute sexual harassment under § 106.30, either under a recipient's own code of conduct or under criminal laws in a recipient's jurisdiction (e.g., with respect to a commenter's example of drugging at a dorm party)." Nondiscrimination, *supra* note 105. However, developing two entirely separate definitions of sexual harassment within the same policy, as the University of Montana does, gives the institution no room to decide which definition it chooses to apply, which may (and has) lead to conduct concurrent

(from May 6, when the regulations were released, to the effective date on August 14) was not sufficient for Murray State. Instead, the university will wait a total of 209 days before revising its policy. In the interim, Murray State has not added the definition of harassment from the regulations to its Title IX webpage or any other location on its website.<sup>107</sup>

The majority of schools, however, have unfortunately adopted what FIRE is calling a “dual-track approach” to reaching policy compliance. While these schools adopted the regulations’ definition of sexual harassment for Title IX cases, they also maintain a broader sexual harassment definition for other types of cases.<sup>108</sup>

For example, the State University of New York at Fredonia adopted a “Title IX Grievance Policy” that incorporates the definition from the regulations. However, the policy also provides that “SUNY Fredonia remains committed to addressing any violations of its policies, even those not meeting the narrow standards defined under the Title IX Final Rule,” and that “the institution retains authority to investigate and adjudicate the allegations under the policies and procedures defined within the Code of Conduct through a separate grievance proceeding.”<sup>109</sup>

This “Code of Conduct” policy in turn references the university’s “Sexual Harassment Policy,” which provides the “blueprint” definition of sexual harassment discussed earlier.<sup>110</sup> Thus, with both the speech-protective definition from the regulations and this broader definition in place, students at SUNY Fredonia are still at risk of being punished for engaging in protected speech.

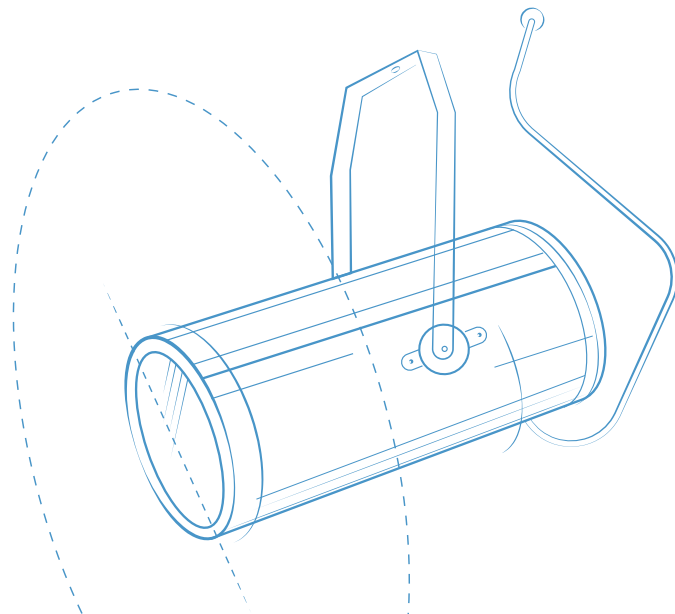
The results thus far are not all negative. Some schools have adopted the definition of sexual harassment from the regulations in their policies across the board. For example, West Virginia University previously banned “severe or pervasive” conduct in defining hostile environment harassment, rather than requiring that conduct be both “severe” and “pervasive,” as per the standard from Davis.<sup>111</sup> Now, that hostile environment definition has been revised to fully track the regulations, requiring both severity and pervasiveness in not only

Title IX cases, but also cases of hostile environment harassment based on other protected characteristics.<sup>112</sup>

And even where schools haven’t adopted the Davis standard across all policies, revising policies pursuant to the regulations has resulted in significant improvements. Wichita State University, for one, improved from an overall red light rating to an overall yellow light rating by removing its blueprint sexual harassment policy and replacing it with one that adopts the definition from the regulations.<sup>113</sup> The university still maintains a harassment provision in its student code of conduct that defines harassment more broadly than the regulations, but the removal of the blueprint definition is an important victory for free speech rights.<sup>114</sup>

At the time of this writing, it is difficult to be sure of the future of the Department of Education’s regulations. Thus, civil liberties advocates must continue to be diligent in identifying threats to free expression presented by overbroad harassment policies.

Whether or not the Title IX regulations remain in place, schools will need to be urged into compliance, watched to make sure they don’t adopt additional, conflicting policies, and monitored to ensure that the application of such policies does not infringe on student rights. FIRE will continue to do so, regardless of what the future holds for these regulations.



proceedings), a scenario that invites administrative abuse and puts free speech and due process rights at risk. As a federal district court recently explained: “Such disregard for the inevitable administrative headaches of a multi-procedure approach certainly qualifies as evidence of an irregular adjudicative process.” *Doe v. Rensselaer Polytechnic Institute*, No. 1:20-cv-1185, at 13\* (N.D.N.Y. Oct. 16, 2020). The court found that a school’s “conscious and voluntary choice to afford a plaintiff, over his objection, a lesser standard of due process protections when that school has in place a process which affords greater protections, qualifies as an adverse action.” *Id.*

<sup>109</sup> Title IX Grievance Policy, SUNY FREDONIA at 5, fredonia.edu/sites/default/files/section/about/diversity-inclusion/SUNY%20Fredonia%20Title%20IX%20Policy.pdf (last visited Oct. 20, 2020).

<sup>110</sup> Sexual Harassment Policy, UNIV. POLICIES FOR STUDENTS, fredonia.edu/student-life/student-conduct/policies#SexualDiscrimination (last visited Oct. 20, 2020).

<sup>111</sup> Archive: BOG Policy 44 - Policy Regarding Discrimination, Harassment, Sexual Harassment, Sexual & Domestic Misconduct, Stalking, and Retaliation, WEST VIRGINIA UNIV. RULES, POLICIES, AND PROCEDURES (repealed Aug. 14, 2020), policies.wvu.edu/archives/bog-policy-44-policy-regarding-discrimination-harassment-sexual-harassment-sexual-domestic-misconduct-stalking-and-retaliation.

<sup>112</sup> BOG Governance Rule 1.6 - Rule Regarding Discrimination, Harassment, Sexual Harassment, Sexual Misconduct, Domestic Misconduct, Stalking, Retaliation, and Relationships, WEST VIRGINIA UNIV. RULES, POLICIES, AND PROCEDURES (Aug. 14, 2020), policies.wvu.edu/finalized-bog-rules/bog-governance-rule-1-6-rule.

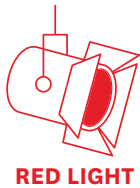
<sup>113</sup> Sexual Harassment, Discrimination and Retaliation for Employees, Students and Visitors, WSU POLICIES AND PROCEDURES (last revised Aug. 13, 2020), wichita.edu/about/policy/ch\_03/ch3\_06.php.

<sup>114</sup> Student Code of Conduct Handbook, WSU POLICIES AND PROCEDURES (last revised June 24, 2020), wichita.edu/about/student\_conduct/student-code-of-conduct-handbook.php.

# APPENDICES

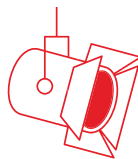
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## Appendix A: Schools by Rating



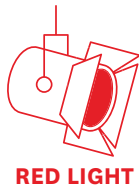
RED LIGHT

Adams State University  
Alabama A&M University  
Barnard College  
Bates College  
Boston College  
Boston University  
California State University - Dominguez Hills  
California State University - Fresno  
California State University - Monterey Bay  
Carleton College  
Case Western Reserve University  
Cheyney University of Pennsylvania  
Chicago State University  
Clark University  
Clemson University  
Coastal Carolina University  
Colby College  
Colgate University  
College of the Holy Cross  
Connecticut College  
Dakota State University  
Davidson College  
Delaware State University  
DePauw University  
Dickinson College  
Drexel University  
Eastern Illinois University  
Evergreen State College  
Fordham University  
Fort Lewis College  
Framingham State University  
Furman University  
Georgetown University  
Grinnell College  
Harvard University  
Harvey Mudd College  
Howard University  
Johns Hopkins University  
Kean University  
Lafayette College  
Lake Superior State University  
Lehigh University  
Lewis-Clark State College  
Lincoln University  
Louisiana State University - Baton Rouge



RED LIGHT

Macalester College  
Marquette University  
Middlebury College  
Mount Holyoke College  
Murray State University  
Northeastern University  
Northern Vermont University  
Northwestern University  
Portland State University  
Princeton University  
Reed College  
Rensselaer Polytechnic Institute  
Rice University  
Santa Clara University  
Shawnee State University  
Southern Illinois University at Carbondale  
Southern Illinois University Edwardsville  
Southern Oregon University  
St. Olaf College  
State University of New York - Fredonia  
State University of New York - New Paltz  
Stevens Institute of Technology  
Tennessee State University  
The College of New Jersey  
Troy University  
Tufts University  
Tulane University  
Union College  
University of Alaska Anchorage  
University of Alaska Fairbanks  
University of Central Missouri  
University of Central Oklahoma  
University of Colorado Denver  
University of Houston  
University of Houston-Downtown  
University of Illinois at Chicago  
University of Louisiana Lafayette  
University of Massachusetts at Dartmouth  
University of Massachusetts at Lowell  
University of Miami  
University of Notre Dame  
University of Southern California  
University of Texas at Arlington  
University of Texas at Austin  
University of Texas at Dallas  
University of Tulsa  
University of Wisconsin - Oshkosh  
University of Wyoming  
Utah State University  
Valdosta State University  
Villanova University



Virginia State University  
Western Illinois University  
Western Michigan University  
William Paterson University  
Winston-Salem State University  
Worcester Polytechnic Institute



Central Michigan University  
Central Washington University  
Centre College  
Christopher Newport University  
Clarion University of Pennsylvania  
College of Charleston  
Colorado College  
Colorado School of Mines  
Colorado State University  
Colorado State University Pueblo  
Columbia University  
Cornell University  
Dartmouth College  
East Stroudsburg University of Pennsylvania  
East Tennessee State University  
Eastern Michigan University  
Eastern New Mexico University  
Eastern Washington University  
Elizabeth City State University  
Ferris State University  
Fitchburg State University  
Florida A&M University  
Florida Atlantic University  
Florida Gulf Coast University  
Florida International University  
Fort Hays State University  
Franklin & Marshall College  
Frostburg State University  
George Washington University  
Georgia Gwinnett College  
Georgia Institute of Technology  
Georgia Southern University  
Georgia State University  
Gettysburg College  
Governors State University  
Grambling State University  
Grand Valley State University  
Hamilton College  
Haverford College  
Henderson State University  
Humboldt State University  
Hunter College, City University of New York  
Idaho State University  
Illinois State University  
Indiana State University  
Indiana University - Bloomington  
Indiana University - Kokomo  
Indiana University - Purdue University Columbus  
Indiana University - Purdue University Indianapolis  
Indiana University of Pennsylvania  
Indiana University South Bend



Alabama State University  
American University  
Angelo State University  
Arkansas State University  
Athens State University  
Auburn University Montgomery  
Ball State University  
Bard College  
Baruch College  
Bemidji State University  
Black Hills State University  
Bloomsburg University of Pennsylvania  
Boise State University  
Bowdoin College  
Bowling Green State University  
Brandeis University  
Bridgewater State University  
Brooklyn College, City University of New York  
Brown University  
Bryn Mawr College  
Bucknell University  
California Institute of Technology  
California Maritime Academy  
California Polytechnic State University  
California State Polytechnic University, Pomona  
California State University - Bakersfield  
California State University - Channel Islands  
California State University - Chico  
California State University - East Bay  
California State University - Fullerton  
California State University - Long Beach  
California State University - Los Angeles  
California State University - Northridge  
California State University - Sacramento  
California State University - San Bernardino  
California State University - San Marcos  
California State University - Stanislaus  
California University of Pennsylvania  
Cameron University  
Carnegie Mellon University  
Central Connecticut State University





Indiana University, East  
Indiana University, Northwest  
Indiana University, Southeast  
Iowa State University  
Jacksonville State University  
James Madison University  
Kennesaw State University  
Kent State University  
Kentucky State University  
Kenyon College  
Kutztown University of Pennsylvania  
Lock Haven University of Pennsylvania  
Longwood University  
Louisiana Tech University  
Mansfield University of Pennsylvania  
Marshall University  
Massachusetts College of Liberal Arts  
Massachusetts Institute of Technology  
Metropolitan State University  
Metropolitan State University of Denver  
Miami University of Ohio  
Michigan State University  
Middle Georgia State University  
Middle Tennessee State University  
Millersville University of Pennsylvania  
Missouri State University  
Missouri University of Science & Technology  
Montana State University  
Montana Tech of the University of Montana  
Montclair State University  
Morehead State University  
New College of Florida  
New Jersey Institute of Technology  
New Mexico State University  
New York University  
Nicholls State University  
Norfolk State University  
North Carolina A&T State University  
North Dakota State University  
Northeastern Illinois University  
Northern Illinois University  
Northern Kentucky University  
Northern Michigan University  
Northwestern Oklahoma State University  
Northwestern State University  
Oakland University  
Oberlin College  
Occidental College  
Ohio University  
Oklahoma State University - Stillwater  
Old Dominion University



Pennsylvania State University - University Park  
Pittsburg State University  
Pitzer College  
Pomona College  
Radford University  
Rhode Island College  
Rogers State University  
Rowan University  
Rutgers University - New Brunswick  
Saginaw Valley State University  
Saint Cloud State University  
Salem State University  
Sam Houston State University  
San Diego State University  
San Francisco State University  
San Jose State University  
Scripps College  
Sewanee, The University of the South  
Skidmore College  
Slippery Rock University of Pennsylvania  
Smith College  
Sonoma State University  
South Dakota State University  
Southeast Missouri State University  
Southeastern Louisiana University  
Southern Connecticut State University  
Southern Methodist University  
Southern Utah University  
Southwest Minnesota State University  
Stanford University  
State University of New York - Binghamton  
State University of New York - Oswego  
State University of New York - Albany  
State University of New York - University at Buffalo  
State University of New York College of Environmental  
Science and Forestry  
Stockton University  
Stony Brook University  
Swarthmore College  
Syracuse University  
Tarleton State University  
Temple University  
Tennessee Technological University  
Texas Southern University  
Texas State University - San Marcos  
Texas Tech University  
Texas Woman's University  
The City College of New York  
The Ohio State University  
The University of Virginia's College at Wise  
Towson University



Trinity College  
 University of Akron  
 University of Alabama  
 University of Alabama at Birmingham  
 University of Alabama in Huntsville  
 University of Alaska Southeast  
 University of Arkansas - Fayetteville  
 University of California Berkeley  
 University of California Davis  
 University of California Irvine  
 University of California Merced  
 University of California Riverside  
 University of California San Diego  
 University of California Santa Barbara  
 University of California Santa Cruz  
 University of Central Arkansas  
 University of Central Florida  
 University of Cincinnati  
 University of Connecticut  
 University of Delaware  
 University of Denver  
 University of Georgia  
 University of Hawaii at Manoa  
 University of Hawaii Hilo  
 University of Idaho  
 University of Illinois at Springfield  
 University of Illinois at Urbana-Champaign  
 University of Iowa  
 University of Kansas  
 University of Kentucky  
 University of Maine  
 University of Maine at Fort Kent  
 University of Maine Presque Isle  
 University of Mary Washington  
 University of Massachusetts - Amherst  
 University of Massachusetts - Boston  
 University of Memphis  
 University of Michigan - Ann Arbor  
 University of Michigan - Dearborn  
 University of Michigan - Flint  
 University of Minnesota - Morris  
 University of Minnesota - Twin Cities  
 University of Missouri - Columbia  
 University of Missouri-Kansas City  
 University of Missouri-St. Louis  
 University of Montana  
 University of Montana Western  
 University of Montevallo  
 University of Nebraska - Lincoln  
 University of Nebraska Omaha  
 University of Nevada, Las Vegas



University of Nevada, Reno  
 University of New Mexico  
 University of New Orleans  
 University of North Alabama  
 University of North Carolina at Asheville  
 University of North Carolina School of the Arts  
 University of North Georgia  
 University of North Texas  
 University of Northern Colorado  
 University of Northern Iowa  
 University of Oklahoma  
 University of Oregon  
 University of Pennsylvania  
 University of Pittsburgh  
 University of Rhode Island  
 University of Richmond  
 University of Rochester  
 University of South Alabama  
 University of South Carolina Columbia  
 University of South Dakota  
 University of South Florida  
 University of South Florida at Saint Petersburg  
 University of Southern Indiana  
 University of Southern Maine  
 University of Texas at El Paso  
 University of Texas at San Antonio  
 University of Texas at Tyler  
 University of Texas Rio Grande Valley  
 University of Toledo  
 University of Utah  
 University of Vermont  
 University of Washington  
 University of West Alabama  
 University of West Florida  
 University of West Georgia  
 University of Wisconsin - Eau Claire  
 University of Wisconsin - Green Bay  
 University of Wisconsin - La Crosse  
 University of Wisconsin - Madison  
 University of Wisconsin - Stout  
 University of Wisconsin Milwaukee  
 Utah Valley University  
 Vanderbilt University  
 Virginia Commonwealth University  
 Virginia Polytechnic Institute and State University  
 Wake Forest University  
 Washington & Lee University  
 Washington State University  
 Washington University in St. Louis  
 Wayne State University  
 Weber State University



Wellesley College  
 Wesleyan University  
 West Chester University of Pennsylvania  
 West Virginia University  
 Western Kentucky University  
 Western Oregon University  
 Western Washington University  
 Westfield State University  
 Whitman College  
 Wichita State University  
 Williams College  
 Winona State University  
 Worcester State University  
 Wright State University  
 Yale University  
 Youngstown State University

State University of New York - Brockport  
 State University of New York - Plattsburgh  
 Texas A&M University  
 The College of William & Mary  
 University of Arizona  
 University of California Los Angeles  
 University of Chicago  
 University of Colorado at Boulder  
 University of Florida  
 University of Louisville  
 University of Maryland - College Park  
 University of Mississippi  
 University of New Hampshire  
 University of North Carolina - Pembroke  
 University of North Carolina Chapel Hill  
 University of North Carolina Charlotte  
 University of North Carolina Greensboro  
 University of North Carolina Wilmington  
 University of North Dakota  
 University of North Florida  
 University of Southern Mississippi  
 University of Tennessee Knoxville  
 University of Virginia  
 Western Carolina University  
 Western Colorado University























Alcorn State University  
 Appalachian State University  
 Arizona State University  
 Auburn University  
 Claremont McKenna College  
 Cleveland State University  
 Colorado Mesa University  
 Delta State University  
 Duke University  
 East Carolina University  
 Eastern Kentucky University  
 Edinboro University of Pennsylvania  
 Emory University  
 Fayetteville State University  
 Florida State University  
 George Mason University  
 Jackson State University  
 Kansas State University  
 Keene State College  
 McNeese State University  
 Michigan Technological University  
 Mississippi State University  
 North Carolina Central University  
 North Carolina State University  
 Northern Arizona University  
 Oregon State University  
 Plymouth State University  
 Purdue University  
 Purdue University Fort Wayne  
 Purdue University Northwest  
 Shippensburg University



Baylor University  
 Brigham Young University  
 Pepperdine University  
 Saint Louis University  
 United States Military Academy  
 United States Naval Academy  
 Vassar College  
 Yeshiva University

## APPENDIX B: Rating Changes, 2019–2020 Academic Year

SCHOOL NAME	2018–2019 RATING		2019–2020 RATING	
Boise State University	●	Red	●	Yellow
College of Charleston	●	Red	●	Yellow
Colorado Mesa University	●	Yellow	●	Green
Dartmouth College	●	Red	●	Yellow
Emory University	●	Red	●	Green
Fayetteville State University	●	Yellow	●	Green
Florida State University	●	Red	●	Green
Georgia Southern University	●	Red	●	Yellow
Governors State University	●	Red	●	Yellow
Harvey Mudd College	●	Yellow	●	Red
Idaho State University	●	Red	●	Yellow
Jackson State University	●	Yellow	●	Green
Morehead State University	●	Red	●	Yellow
New Jersey Institute of Technology	●	Red	●	Yellow
Northern Illinois University	●	Red	●	Yellow
Northwestern University	●	Yellow	●	Red
Oklahoma State University - Stillwater	●	Red	●	Yellow
Rice University	●	Yellow	●	Red
Shawnee State University	●	Yellow	●	Red
Southeastern Louisiana University	●	Red	●	Yellow
Southern Utah University	●	Red	●	Yellow
State University of New York - Albany	●	Red	●	Yellow
Syracuse University	●	Red	●	Yellow
University of Alabama at Birmingham	●	Red	●	Yellow
University of Colorado at Boulder	●	Yellow	●	Green

SCHOOL NAME	2018-2019 RATING		2019-2020 RATING	
University of Montana		Red		Yellow
University of New Orleans		Red		Yellow
University of North Texas		Red		Yellow
University of South Carolina Columbia		Red		Yellow
University of Texas at Arlington		Yellow		Red
Valdosta State University		Yellow		Red
Western Michigan University		Yellow		Red
Whitman College		Red		Yellow
Wichita State University		Red		Yellow
Winston-Salem State University		Yellow		Red

## APPENDIX C: Schools at Which a Faculty or Administrative Body Has Adopted a Version of the 'Chicago Statement'

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Adrian College\*  
American University  
Amherst College  
Appalachian State University  
Arizona State University  
Ashland University\*  
Ball State University  
Board of Regents, State of Iowa  
Brandeis University  
California State University – Channel Islands  
Case Western Reserve University  
Chapman University\*  
Christopher Newport University  
Claremont McKenna College  
Clark University  
Cleveland State University  
Colgate University  
Colorado Mesa University  
Columbia University  
Denison University\*  
Eckerd College\*  
Franklin & Marshall College  
George Mason University  
Georgetown University  
Gettysburg College  
Jacksonville State University  
Johns Hopkins University  
Joliet Junior College\*  
Kansas State University  
Kenyon College  
Kettering University\*  
Louisiana State University System  
Miami University of Ohio  
Michigan State University  
Middle Tennessee State University  
Nevada System of Higher Education  
Northern Illinois University  
Ohio University  
Ohio Wesleyan University\*  
Princeton University  
Purdue University  
Ranger College\*  
Smith College  
Snow College\*  
South Dakota University System

State University of New York – University at Buffalo  
State University System of Florida  
Stetson University\*  
Suffolk University\*  
Tennessee Technological University  
The Citadel\*  
The City University of New York  
University of Alabama System  
University of Arizona  
University of Arkansas at Little Rock\*  
University of Colorado System  
University of Denver  
University of Louisiana System  
University of Maine System  
University of Maryland  
University of Minnesota  
University of Missouri System  
University of Montana  
University of Nebraska  
University of North Carolina – Chapel Hill  
University of Southern Indiana  
University of Texas at San Antonio  
University of Toledo  
University of Virginia College at Wise  
University of Wisconsin System  
Utica College\*  
Vanderbilt University  
Washington and Lee University  
Washington University in St. Louis  
Winston-Salem State University  
Winthrop University\*

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**NOTE: Some of the institutions on this list are not rated as a part of the Spotlight database at this time and thus do not fall within this report's speech code analysis. However, they have been included here in order to provide a full list of the institutions at which either the administration or a faculty body has adopted a version of the Chicago Statement. Such institutions are denoted with an asterisk.**

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## APPENDIX D: Schools with “Free Speech Zones”

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Auburn University Montgomery  
Ball State University  
Bemidji State University  
Bridgewater State University  
California State University - Dominguez Hills  
California State University - Los Angeles  
California State University – Sacramento  
East Tennessee State University  
Eastern Illinois University  
Elizabeth City State University  
Grambling State University  
Kentucky State University  
Montclair State University  
Morehead State University  
Northwestern State University  
Occidental College  
Rutgers University - New Brunswick  
Saint Cloud State University  
Southern Illinois University at Carbondale  
Stanford University  
Texas Southern University  
The College of New Jersey  
Tulane University  
University of Alabama in Huntsville  
University of California Riverside  
University of Illinois at Urbana-Champaign  
University of Iowa  
University of Massachusetts at Dartmouth  
University of Nebraska - Lincoln  
University of North Carolina School of the Arts  
University of South Carolina Columbia  
University of Southern Indiana  
University of West Alabama  
Vanderbilt University



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Rights in Education

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    **@thefireorg**

# EXHIBIT P

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<https://www.wsj.com/articles/the-pronoun-police-middle-schoolers-sexual-harassment-title-ix-nine-mispronouncing-transgender-lgbtqia-free-speech-pronoun-11653337766>

## OPINIONCOMMENTARY

# *The Progressive Pronoun Police Come for Middle Schoolers*

A Wisconsin school district opened a Title IX sexual-harassment investigation against 8th graders for calling a student ‘her’ instead of ‘them.’

---

By Rick Esenberg and Luke Berg

May 23, 2022 6:11 pm ET

*Kiel, Wis.*

For most people, the term “Title IX investigation” calls to mind allegations of rape, groping, unwanted sexual advances or a pervasive pattern of verbal abuse. Think again. Wisconsin’s Kiel Area School District, in deep red Manitowoc and Calumet counties along the western shore of Lake Michigan, has uncovered a new form of harassment. On April 25 they accused three eighth-grade boys of sexual harassment—and launched a Title IX investigation—for something called “mispronouncing.” These children used “her” to refer to a classmate who wants to be called “them.”

It’s easy to dismiss this as bizarre. You won’t find mispronouncing in the Wisconsin statutes or U.S. code. It hardly resembles the egregious aggression that we associate with harassment. It doesn’t, in and of itself, constitute conduct “so severe, pervasive, and objectively offensive that it effectively denies a person equal access to education” as Title IX law on harassment requires. But the stain that such a charge could leave on these boys’ reputations and the harm inflicted upon their futures is real.

The boys’ parents first heard about the charges when they received a call from the district that their sons were about to be charged with sexual harassment under Title IX. There had been no prior warning or discussions with the families about pronoun use at school, nor did the district initially explain what the boys had done to warrant being investigated for a violation of federal law. When the families were finally informed that the alleged sexual harassment—the boys’ potential federal offense—was “using incorrect pronouns,” terror

quickly turned to bewilderment. “Is this real? This has to be a joke,” thought Rose Rabidoux, one of the parents.

When the parents reached out to us at the Wisconsin Institute for Law & Liberty, we had the same reaction: This can’t be real. Alas, it is. The district appears to believe that once a student announces different pronouns to others, any subsequent use of the biologically and grammatically correct pronouns—even when not directed to the student—may be punishable as sexual harassment under Title IX.

We hope Kiel is an outlier, but it may not be. A school board in Virginia is reportedly considering adding a policy to prohibit “malicious misgendering.” The Biden administration is about to unveil its long-awaited update to Title IX regulations and, given the president’s pronouncement that transgender discrimination is the civil-rights issue of our time, it wouldn’t be surprising if the new rules call for the policing of pronouns. All of this may soon be coming to a school near you.

Apparently, any failure to comply will subject an adolescent to a frightening inquisition. Parents need to stand up against this wherever it rears its ugly head. Middle school is hard enough as it is. Young students shouldn’t live in fear of punishment if they don’t follow the left’s ever-changing fads about speech. And they should know that they have a right to disagree respectfully with the idea that gender is self-declared. Of course, teasing or aggravating other students—including through the use of names or pronouns—is wrong. But generations have been raised into courteous adults without formal investigations and allegations of federal offense. When common sense goes missing in places like Kiel, something has gone wrong.

Title IX regulations require a district to dismiss a complaint immediately if the allegations, even if proven, wouldn’t amount to sexual harassment. That’s what should have happened here, so that’s what our letter to the district urges it to do: Dismiss the charges, clear these kids’ records, and make changes so this doesn’t happen again. It isn’t too late for the district to do the right thing. It blew the matter out of proportion and has harmed the children who were charged to its care.

This episode doesn’t have to become a federal lawsuit, but if the district follows through and punishes these boys solely for “mispronouncing,” it will.

*Mr. Esenberg is president and general counsel of the Wisconsin Institute for Law & Liberty, where Mr. Berg is deputy counsel.*

# EXHIBIT Q





[Home](#) » [100 Series: School District](#) » [103.1 - Anti-Bullying and Anti-Harassment](#)

## 103.1-R - Administrative Regulations Regarding Anti-Bullying/Harassment



### **Individuals who feel that they have been bullied or harassed should:**

1. If the individual is comfortable doing so, communicate to the bully/harasser that the individual expects the behavior to stop. If the individual wants assistance communicating with the bully/harasser, the individual should ask a teacher, counselor, or principal for help.
2. If the harassment does not stop or the individual does not feel comfortable confronting the bully/harasser, the individual should:
  - a. Tell a teacher, counselor, or principal;
  - b. Write down exactly what happened, keep a copy, and give another copy to the teacher, counselor, or principal including the following information:
    - o What, when, and where the incident occurred;
    - o Who was involved in the incident;
    - o Exactly what was said or what the bully/harasser did;
    - o Names of witnesses to the harassment;
    - o What the victim said or did either at the time or later;
    - o How the victim felt;
    - o How the bully/harasser responded; and
    - o Any additional information deemed pertinent.

### **Filing a Complaint**

An individual who believes they have been bullied or harassed may file a complaint with the district's Equity Coordinators (hereinafter "Investigators") who will investigate the complaint.

Equity Coordinator/Title IX Coordinator/Affirmative Action Coordinator:

Mrs. Karla Christian, Chief Officer of Human Resources

Phone: 319-447-3036 / [kchristian@Linnmar.k12.ia.us](mailto:kchristian@Linnmar.k12.ia.us)

Equity Coordinator:

Mr. Nathan Wear, Associate Superintendent

Phone: 319-447-3028 / [Nathan.wear@Linnmar.k12.ia.us](mailto:Nathan.wear@Linnmar.k12.ia.us)

Address: 2999 N 10<sup>th</sup> Street, Marion, IA 52302

Fax: 319-377-9252

An alternate investigator will be designated in the event it is claimed that the district's Equity Coordinator(s) committed the alleged bullying or harassment, or some other conflict of interest exists.

Complaints shall be filed within 180 days of the event giving rise to the complaint or from the date the Complainant could reasonably become aware of such occurrence. The Complainant will state the nature of the complaint and the remedy requested. The Complainant shall receive assistance as needed.

## Investigation

The school district will promptly and reasonably investigate allegations of bullying or harassment upon receipt of a written complaint. The Equity Coordinators (hereinafter "Investigators") will be responsible for handling all complaints alleging bullying or harassment or appoint a qualified person to undertake the investigation. The Investigators, along with the building principal, have the authority to initiate an investigation in the absence of a written complaint.

The investigation may include, but is not limited to the following:

1. Interviews with the Complainant and the individual named in the complaint ("Respondent");
2. A request for the Complainant to provide a written statement regarding the nature of the complaint;
3. A request for the Respondent to provide a written statement;
4. Interviews with witnesses identified during the course of the investigation;
5. A request for witnesses identified during the course of the investigation to provide a written statement; and
6. Review and collection of documentation or information deemed relevant to the investigation.

The Investigator shall consider the totality of circumstances presented in determining whether conduct objectively constitutes bullying or harassment as defined in board policy.

Upon completion of the investigation, the Investigator shall issue a report with respect to the

[Case 1:22-cv-00078-CJW-MAR Document 3-11 Filed 08/05/22 Page 115 of 216](#)

findings and provide a copy of the report to the appropriate building principal, or to the superintendent if the investigation involved the building principal.

Following receipt of the Investigator's report the building principal may investigate further, if deemed necessary, and make a determination of any appropriate additional steps, which may include discipline. Prior to the determination of the appropriate remedial action the building principal may, at their discretion, interview the Complainant and the Respondent. At the conclusion of the additional investigation, the building principal will file a written report closing the case and documenting any disciplinary action taken or any other action taken in response to the complaint. The Complainant, the Respondent, and the Investigator shall receive notice as to the conclusion of the building principal's additional investigation. The building principal will maintain a log of information necessary to comply with Iowa Department of Education reporting procedures.

The complaint and identity of the Complainant, the Respondent, or witnesses shall only be disclosed as reasonably necessary in connection with the investigation or as required by law or policy. Similarly, evidence uncovered in the investigation shall be kept confidential to the extent reasonably possible.

**Decision:**

The Investigators, building principal, or superintendent, depending on the individuals involved, shall inform the Complainant and the Accused about the outcome of the investigation.

If, after an investigation, a student is found to be in violation of policy, the student shall be disciplined by appropriate measures, which may include suspension and expulsion. If after an investigation a school employee is found to be in violation of policy, the employee shall be disciplined by appropriate measures, which may include termination. If after an investigation a school volunteer is found to be in violation of this policy, the volunteer shall be subject to appropriate measures, which may include removal from service and exclusion from school grounds.

Individuals who knowingly file false bullying and/or harassment complaints and any person who gives false statements in an investigation may be subject to discipline by appropriate measures, as shall any person who is found to have retaliated against another in violation of this policy. Any student found to have retaliated in violation of this policy shall be subject to measures up to, and including, suspension and expulsion. Any school employee found to have retaliated in violation of this policy shall be subject to measures up to, and including, termination of employment. Any school volunteer found to have retaliated in violation of this policy shall be subject to measures up to, and including removal of service and exclusion from school grounds.

Reports of false complaints, false statements, or retaliation should be submitted to the district's Equity Coordinators.

It is the responsibility of the superintendent, in conjunction with the Equity Coordinators and building principals, to develop district procedures regarding anti-bullying/harassment. The superintendent [or designee] will also be responsible for organizing training programs for students, school employees, and volunteers regarding how to recognize bullying and harassing behavior and what to do if this behavior is witnessed.

The superintendent [or designee] is responsible for developing a process for evaluating the effectiveness of policy in reducing bullying and harassment and will report on the progress of reducing bullying and harassment to the school board.

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Adopted: 6/00

Reviewed: 9/10; 10/11; 4/13; 5/14; 9/16

Revised: 7/13; 6/20

Related Policy (Code #): 103.1; 103.1.E1-E3; 401.1; 403.13; 500.1

IASB Reference: 104.R1

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[◀ 103.1 - Anti-Bullying and Anti-Harassment](#)

[up](#)

[103.1-E1 - Anti-Bullying/Harassment Complaint Form ▶](#)

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[Printer-friendly version](#)

# EXHIBIT R

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[https://www.kwwl.com/news/cedar-rapids/linn-mar-school-board-approves-policy-affirming-rights-for-transgender-students/article\\_a43b10cc-c517-11ec-874a-bb52145ed7f6.html](https://www.kwwl.com/news/cedar-rapids/linn-mar-school-board-approves-policy-affirming-rights-for-transgender-students/article_a43b10cc-c517-11ec-874a-bb52145ed7f6.html)

## **Linn-Mar school board approves policy affirming rights for transgender students**

Travis Breese

**Apr 25, 2022**



LGBTQ+ students hold flags while listening to Monday's meeting.



MARION, Iowa (KWWL) - After more than three hours of public comment Monday, the Linn-Mar Board of Education approved an updated policy regarding transgender student's rights.

The policy says any student is able to decide what bathroom they wish to use, what locker room they wish to use, and what gender they choose to room with on overnight trips, regardless of the gender they were assigned at birth.

The district says it has been following this policy for several years, because it is required under state and federal law, but it has never been formally codified into the school bylaws.

Many parents said they didn't know these policies were being followed, and argued they put their cisgender kids at risk.

"How can you possibly support that? Letting boy --a young male-- go into a shower with girls...Young girls need to feel safe in this school, and if you pass this, they will not," Steve Smith said, a parent speaking against the policy.

Others said policies like this will reduce rates of suicide in LGBTQ+ kids and promote an inclusive culture.

"What it comes down to is making our trans and non-binary students understand the school is a safe place for them, as it has been for cis kids," Kara Larson said, a parent speaking in support of the policy. "These students want nothing more than to be themselves and be comfortable in their own skin."

Lawyers for the district pointed out that the Iowa Civil Rights Act and the U.S. Department of Education have language outlawing discrimination against transgender students:

Iowa Civil Rights Act:

"10. 'Gender identity' means a gender-related identity of a person, regardless of the person's assigned sex at birth.

...

## 216.9 Unfair or discriminatory practices - education.

1. It is an unfair or discriminatory practice for any educational institution to discriminate on the basis of race, creed, color, sex, sexual orientation, gender identity, national origin, religion, or disability in any program or activity. Such discriminatory practices shall include but not be limited to the following practices:

A. Exclusion of a person or persons from participation in, denial of the benefits of, or subjection to discrimination in any academic, extracurricular, research, occupational training, or other program or activity **except athletic programs...**"

- Iowa Civil Rights Act

The U.S. Department of Education's language regarding Title IX protections for transgender students is not as clearly defined. However, the USDE did release an interpretation of the recent Supreme Court case *Bostock v. Clayton County*, in which it says Title IX applies to gender identity.

"Title IX Prohibits Discrimination Based on Sexual Orientation and Gender Identity. Consistent with the Supreme Court's ruling and analysis in *Bostock*, the Department interprets Title IX's prohibition on discrimination "on the basis of sex" to encompass discrimination on the basis of sexual orientation and gender identity."

- USDE Guidance 6/22/21

"Whether you form it into a formal policy and notify parents would not change your obligations under Title IX and the Iowa Civil Rights Act," Mariam Van Heukelem said with Ahlers & Cooney Attorneys, who represents Linn-Mar.

Van Heukelem would not comment on how this interacts with the recent law Governor Reynolds signed banning trans athletes from competing alongside their preferred gender, but the school board president said the two can coexist.

"We've had an increase in questions around transgender and the athletic bill and things like that --which this policy does not go against that bill. This is a clarification. You can refer to the policy that adheres to Title IX...Even if we all voted "NO" tonight, these are still the policies we'd have to follow," Board of Education President Brittania Morey said.

This legal explanation came *after* 76 people addressed the school board for over three hours about their concerns or support.

Aside from the use of bathrooms or locker rooms, another complaint from opponents was parent transparency.

The policy says any student in seventh grade or older can set a "Gender Support Plan" about what facilities they use *without* their parent's permission.

"It is horrible and terrible when you read that the school is going to make plans with your student and not inform the parents —for whatever reason— I think that's a bad idea," Cindy Kettelkamp said.

Members of the Linn-Mar Gay-Straight Alliance, called Spectrum, said some autonomy from parents is necessary, as some students may face backlash within their homes for their gender-identity.

"By not informing parents, you are allowing students to be in a comfortable environment at school, without being kicked out, punished or even harmed by their own parents," Dani Kallas said, president of Spectrum.

Van Heukelem recommended a wording change to the board that recognizes the Family Education Rights and Privacy Act, or FERPA, gives parents a legal right to see any "educational plans" for their students.

She said conversations with a counselor, doctor or nurse would remain private, but once it is made into a procedure passed between school administrators, then parents have an unquestionable right to see it.

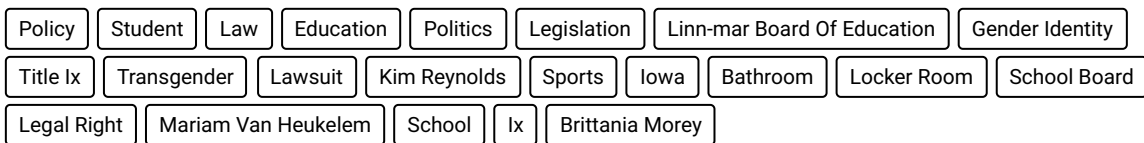
The board included this wording change and passed the policy 5-2. According to Superintendent Shannon Bisgard, this creates an environment where a student (7th grade or older) could make a Gender Support Plan without parental permission, but if the parent asked to see the plan, the district would have to provide it.

After the meeting, Kat Power, the faculty advisor for Spectrum, said she was proud of LGBTQ+ students for speaking at the meeting, and happy with the school board's vote.

"I was very proud of them but I also felt very sad for them to have to listen to all of that hate speech. It's not easy at any age," Power said. "I feel proud that the rights they (the students) already had are being recognized."

(NOTE: The video attached to this story incorrectly states the board needed three votes to pass the policy; it only needed two.)

## Tags



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## Travis Breese

Iowa City Reporter

# EXHIBIT S





## Article

# Characterizing Parent–Child Interactions in Families of Autistic Children in Late Childhood

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**Abstract:** Parent–child interactions are influential to a wide range of positive developmental processes in neurotypical children, yet contributions to our understanding of these interactions using observational methods in families of children on the autism spectrum are lacking. The aim of the current study is to investigate how autism symptoms might impact these interactions. We use a family discussion task to: (1) compare families of autistic children aged 8–12 years ( $n = 21$ ) to families of typically developing children ( $n = 21$ , matched on age and cognitive abilities) on the observed levels of supportive and directive behaviors in the parent–child relationship, and (2) examine the associations between parent–child interaction characteristics and child functioning. Results showed no differences in the observed levels of supportive behavior exhibited by parents, but significantly less supportive behavior in autistic children compared to neurotypical children. In addition, parents of autistic children had higher levels of observed directive behavior compared to parents of neurotypical children. Levels of supportive behavior in parents and autistic children were negatively associated with child ADHD symptoms. Findings reinforce literature on younger children describing positive parenting characteristics and further rebuke historical accounts of negative parenting qualities of parents of autistic children.

**Keywords:** parent–child interactions; autism spectrum disorder; late childhood; mental health



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## 1. Introduction

The 21st century has seen significant advancements in understanding how to best support autistic individuals (a preferred term by autistic adults and parents, see [Kenny et al. \(2015\)](#)), yet, apart from intervention research, there has been surprisingly little research devoted to understanding the characteristics of social support that parents provide. Autistic individuals experience social communication difficulties that are evident across development ([American Psychiatric Association 2013](#)), and starting in the late 20th century, we developed evidence-based interventions that help improve social, communication, and adaptive skills. By the 21st century, many behavioral interventions occurred in the family home, and some began shifting their focus to training parents as mediators of these interventions (e.g., [Nevill et al. 2018](#); [Pickles et al. 2016](#)). Many parents of autistic children have become experts on their children's developmental strengths and challenges, how to manage difficult behaviors, and how to advocate for their children to receive appropriate services. Parents have gained new tools and a better understanding of autism, but how these multiple parenting roles might affect parent–child interactions is unclear. Parents may have gained better insight into the needs of their children, perhaps increasing opportunities and exhibitions of supportive behavior, or perhaps their increased managerial parenting roles might challenge or change the types of support they display. In the current study, we investigate whether families of autistic children can be characterized similarly to families of neurotypical youth in late childhood (ages 8 to 12). This will help us advance our fundamental knowledge of parent–child interactions just prior to adolescence. In

addition, our study is unique in using observation methods to study interactions during late childhood; observational methods have previously been using only in families with autistic children under age 5 (e.g., [Blacher et al. 2013](#)). We also investigate how these patterns are related to child characteristics and functioning. This study has the potential to help parents gain insights on how they provide support to their autistic children and may help service providers gain insights on how to better scaffold parent behaviors in consideration of the impact on parent–child relationships.

### *1.1. Theoretical Considerations in the Study of Families of Children on the Autism Spectrum*

In the 21st century, research has extensively documented several impacts that autism has on family functioning, much of which concludes with urgent considerations for parents' mental health. Particularly, parents of autistic children are more likely to report feeling more parenting stress than parents of neurotypical youth and parents of children with other developmental delays, such as Down syndrome (e.g., [Abbeduto et al. 2004](#); [Estes et al. 2009](#); [Bristol and Schopler 1983](#)). The reasons for increased stress compared to other families of children with developmental disabilities is unclear, but guilt in the context of the historical precedent of blame on parents for causing autism ([Kuhn and Carter 2006](#)), a lower frequency of rewarding behaviors exhibited by autistic children, such as smiling and laughing with parents ([Kasari et al. 1990](#)), and the presence of challenging behaviors associated with autism ([Lecavalier et al. 2006](#)), have all been proposed as potential mechanisms for increased stress.

Much of the contemporary literature on families of autistic children describes how autism influences parent mental health and family routines. However, we need more data on how autism symptoms or the symptoms of associated conditions, such as anxiety or ADHD symptoms, might influence family processes, such as the quality of parent–child relationships or parent–child interactions. The social communication symptoms central to autism are manifested as limited joint engagement, eye contact, imitation, and/or interest in social play routines in children under 5. In later childhood, adolescence, and adulthood, these symptoms can also include difficulties understanding and relating to emotions, engaging in reciprocal interactions, and/or relating to the points of view of others. Some of these symptoms are related to challenges parents experience when interacting with their children. For example, autistic children display less effective communication and fewer expressions of enjoyment with their parents ([Beurkens et al. 2013](#)) and have fewer positive emotions and more negative emotions as reported by parents ([Capps et al. 1993](#); [De Pauw et al. 2011](#)). Some of these difficulties may influence the development of less positive parent–child interaction characteristics and relationships. Parents might feel discouraged after their repeated attempts to foster engagement during interactions which do not lead to displays of positive affect in their children, which may result in increased displays of negativity from a parent. In turn, their children may respond to these changes in parent behavior by displaying more challenging behaviors, creating a negative recursive pattern within the relationship. Yet, research on attachment demonstrated that the attachment relationship between parents and younger children is not affected much by autism symptoms. Young autistic children displayed more comfort-seeking behaviors and physical contact with their parents after separations than with strangers, and most autistic children did not differ from children with other developmental disorders in terms of behavioral evidence of secure or insecure attachment classifications ([Capps et al. 1994](#); [Sigman and Ungerer 1984](#); [Rogers et al. 1991](#)), although a minority do not react to separation from or reunion with caregivers ([Grzadzinski et al. 2014](#)).

While autism symptoms do not appear to impact attachment for most children, there remains a concern that increased parenting stress itself can lead to negative interaction patterns later in development. Similar to the mechanism by which economic stress undermines a parent's ability to maintain positive interactions with neurotypical children (see [Masarik and Conger 2017](#)), some of the behavioral challenges exhibited by autistic children may undermine parent coping skills and supportive behavior across time ([Schultz](#)

et al. 2018). Over time, the behavioral challenges have the potential to develop coercive cycles of parent–child interactions, in which parent and child behaviors have been shaped into stable patterns of negativity, see Patterson (1982). As an example, longitudinal studies have demonstrated that parents of autistic children report increases in negative controlling behavior on days when they feel more parenting stress or after their children display high levels of externalizing behaviors, but this increased negative control is also related to more negative child adjustment and parent functioning (De Clercq et al. 2021; Dieleman et al. 2017, 2019). These findings highlight critical challenges for parents, but we need to understand the parent–child interaction beyond parent reports of relationship quality and parenting behaviors via questionnaires.

### 1.2. The Function of Parent–Child Interactions in Late Childhood

In late childhood, neurotypical children are increasingly able to get support from caregivers who are emotionally, but not always physically, present (Bosmans and Kerns 2015). Warmth and support in the parent–child relationship has been associated with fewer externalizing behaviors (Goldstein et al. 2005; Rothenberg et al. 2020), attenuated relations between peer stressors and depressive symptoms (Healy and Sanders 2018; Stice et al. 2004), and improved peer relationships (Flynn et al. 2018). In families characterized by low levels of warmth or high degrees of hostility, neurotypical adolescents engage with more deviant peers (Benson and Buehler 2012) and are at risk of the development of anxiety and depression (Lippold et al. 2021; Sturge-Apple et al. 2006). Neurotypical children benefit from having supportive parents with whom they can freely discuss problems, but who also help them make and enact their own decisions, which is known as “psychological autonomy-granting” (Benito-Gomez et al. 2020; Steinberg 2001).

Can we describe a sensitive and supportive parent of an autistic child similarly to sensitive parents of neurotypical youth in late childhood? Supportive behavior, evidenced by warmth and responsiveness, is universally beneficial for children’s development. In research on autism, studies have demonstrated robust longitudinal associations between supportive parenting and positive adjustment for autistic children (De Clercq et al. 2019). However, how much should parents of autistic children emphasize psychological autonomy in the context of the parent–child relationship? Parental directive behaviors are attempts to shape children’s behaviors or to increase compliance (Ispa et al. 2013). These behaviors might seem intrusive to neurotypical children’s autonomy, but may be appropriate for autistic children. Autistic children may need more direct instruction from parents on skills necessary for autonomy in late childhood, such as social and self-regulatory skills, compared to neurotypical children. Freeman and Kasari (2013) found that increased directive behaviors from parents, taught in the context of early intervention, resulted in increased joint engagement in younger autistic children during play. However, very little is known about the appropriateness or characteristics of directive behaviors for older autistic children, and it may be the case that high levels of parent directive behavior could limit opportunities for learning independence. Likely, there are variations from family to family that could be influenced by the severity of autism symptoms or symptoms of co-occurring conditions, such as ADHD, and we might expect higher levels of these symptoms to elicit increased directive behaviors in parents as they try to maintain a social interaction.

### 1.3. Current Study

There have been limited attempts to assess the parent–child interactions or relationships in families of autistic children outside of early childhood. Some studies have employed questionnaires, (e.g., Chandler and Dissanayake 2014; Maljaars et al. 2014; De Clercq et al. 2019), and several other studies have used the Five Minute Speech Sample (FMSS; e.g., Smith et al. (2008)), in which a parent describes their child uninterrupted for five minutes (Magaña et al. 1986). The FMSS is typically used to measure parent levels of expressed emotion, which consists of critical, hostile, or emotionally over-involved attitudes, and is a metric of an adverse family environment. The FMSS can also be coded for parental warmth,

consisting of positive and supportive statements about their children. While questionnaires can help to establish how both parents and children perceive their relationship, they can be biased and are limited portrayals of relationships. In addition, the FMSS, with a long history of use in psychiatric populations, offers a rich description of parent emotions in the context of the parent–child relationship, but does not allow for conclusions to be drawn about how parents and children interact. Using the FMSS (Magaña et al. 1986), studies have consistently found that mothers of autistic adolescents have high levels of warmth and praise and low levels of criticism when discussing their children, and that warmth is related to reductions in co-occurring externalizing and internalizing symptoms (Greenberg et al. 2006; Smith et al. 2008). However, as the FMSS is coded from parent interviews, there are concerns that these interviews can be biased in studies of autism or other developmental disabilities (Benson et al. 2011).

Observations of parent–child interactions are ideal for capturing both child and parent behavior in the context of the relationship (Acock et al. 2005). One observational measure used in neurotypical populations and in populations at risk for depression is the Iowa Family Rating Scales (IFIRS) (Melby et al. 1998). This rating scale, which is used to code a structured parent–child discussion task, can provide measures of parent and child interactive behaviors, including supportive behavior and directive behavior.

This study uses the IFIRS to examine interaction patterns across parents of neurotypical and autistic children. We posed three main research questions: (1) Do parent–child interaction characteristics differ between families of neurotypical and autistic children in late childhood when measured using the observer-based IFIRS coding? (2) Is there concordance between child and parent interaction characteristics during the discussions? (3) How do interaction characteristics relate to child autism symptoms and symptoms of co-occurring conditions within families who have autistic children?

For our first research question, we hypothesize there will be minimal differences in levels of support and warmth between parents of neurotypical youth and parents of autistic youth based on previous research showing minimal to no differences on parent behavior using observational methods in children under 5 (Blacher et al. 2013). We hypothesize that autistic children would display less overall supportive behavior compared to neurotypical children (e.g., Beurkens et al. 2013). We also hypothesize that parents of autistic children would display more directive behaviors compared to parents of neurotypical children due to increased need for scaffolding during a structured activity. Together, these data would provide rich contemporary data on the interaction characteristics of families of autistic children in late childhood.

For our second research question, we hypothesize that parent and child characteristics within families would be positively correlated, based on past evidence in intervention studies (Solomon et al. 2008). These associations represent a potential opportunity to promote social skill development—if parent and child values are associated, promotions of parent levels of supportive behavior can hopefully lead to increased displays of child levels of supportive behavior.

For our third research question, we hypothesize there to be negative associations between elements of supportive behavior in parent–child interactions and symptoms of autism, anxiety, depression, and ADHD, based on research on adolescents (Greenberg et al. 2006; Smith et al. 2008). Finally, we hypothesize that parent directive behavior will be positively associated with elevated symptoms of autism and co-occurring conditions, including depression, anxiety, and ADHD in children. Although cross-sectional, these associations may suggest either a need for increased scaffolding, or alternatively suggest there may be consequences to high degrees of parental directive behavior in autistic childhood at this point in development.

## 2. Method

### 2.1. Participants

Participants for this study were recruited as part of an ongoing study examining language, social, and cognitive functioning in autistic children and neurotypical children. Children aged 8 to 12 were recruited into the study if their parents reported either a previous diagnosis of autism or no known psychiatric disorder, and if their parents reported adequate verbal abilities for the assessment battery (e.g., can have a conversation with peers). Participants were recruited from the research clinic at the UC Davis MIND Institute, community education events, and local schools.

After enrollment into the study, the diagnosis of autism was confirmed by clinicians using the Autism Diagnostic Observation Schedule, 2nd edition (ADOS-2) (Lord et al. 2012), and further supported by parent ratings on the Social Communication Questionnaire (Rutter et al. 2003). In addition, children were included in the study if their standard score on the General Conceptual Ability was above 70, measured by the Differential Ability Scales, Second Edition (DAS-II) (Elliott 2007).

The current study consists of 42 subjects (21 with confirmed diagnosis of autism, 21 with neurotypical development) matched on age and general intellectual abilities measured by the DAS-II (See Table 1 for a summary of subject and family demographic information). Participants were mostly boys at a 1:4–1:5 ratio, reflective of the proportions of boys to girls diagnosed with autism in the US (Baio et al. 2018). In addition, there were no significant differences between groups on family living situation, family marital status, or annual family income. This research was conducted in compliance with the Institutional Review Board and written consent and assent were obtained from parents and participants at each visit.

**Table 1.** Child and Family Demographics.

	Autism ( <i>n</i> = 21)	Neurotypical ( <i>n</i> = 21)	<i>p</i> -Value
Males (%)	18 (86%)	20 (95%)	0.37
Chronological Age (SD)	10.10 (1.40)	10.42 (1.37)	0.46
DAS-II Verbal (SD)	102.57 (22.73)	108.67 (11.27)	0.28
DAS-II Nonverbal (SD)	98.71 (18.90)	101.00 (10.41)	0.63
DAS-II GCA (SD)	102.24 (18.78)	107.86 (11.60)	0.25
ADOS-2 CSS	6.52 (1.60)	NA	
Race/Ethnicity (%)			
Hispanic/Latino	2 (9.5%)	2 (9.5%)	
Asian	0 (0%)	2 (9.5%)	
Black/African American	3 (14.3%)	3 (14.3%)	
Native Hawaiian/Pacific Islander	1 (4.8%)	1 (4.8%)	
Caucasian	19 (90%)	17 (81%)	
Other	3 (14.3%)	2 (9.5%)	
Missing	1 (4.8%)	2 (9.5%)	
Mothers in Task (%)	20 (95.2%)	20 (95.2%)	
Child Living with Both Biological Parents (%)	15 (71.4%)	15 (71.4%)	
Parents Married (%)	16 (76.2%)	15 (71.4%)	
Annual Family Income (%)			



Table 1. Cont.

	Autism ( <i>n</i> = 21)	Neurotypical ( <i>n</i> = 21)	<i>p</i> -Value
Under \$30 K	1 (4.8%)		
\$30–\$49 K	3 (14.3%)		
\$50–\$74 K	3 (14.3%)		
\$75–\$99 K	2 (9.5%)		
\$100–\$ 149 K	6 (28.6%)		
Over \$150 K	5 (23.8%)		
Missing	1 (4.8%)		

Note: DAS-II = Differential Ability Scales, Second Edition, ADOS = Autism Diagnostic Observation Schedule, CSS = Calibrated Severity Score. Participants were allowed to select multiple race and ethnicity choices. *p*-values represent significance from independent samples *t*-tests for continuous variables. Mothers in Task describes the percentage of parents observed interacting with their children who were mothers of the participants (the remaining parents who were observed were biological fathers).

## 2.2. Procedure

Children and one of their parents (over 95% were mothers) came to the laboratory to complete a battery of cognitive, language, diagnostic measures, and questionnaires. Parents completed questionnaires while standardized assessments were administered to children. In addition, the parent and child were brought to a comfortable room with couches and a table where they were videotaped engaging in a structured discussion. Parents and children sat at a table near each other and were given a set of 28 cards to read and were asked to discuss the questions on the cards and continue talking until the examiner returned in 25 min. The cards contained topics such as chores, discipline, friends, and emotional events within the past year.

## 2.3. Measures

Each of the structured discussions was videotaped and coded using the Iowa Family Interaction Rating Scales (IFIRS) (Melby et al. 1998), which focus on the frequency and intensity of observable behaviors from each member of the dyad towards the other. Both verbal and nonverbal behaviors were considered for each code. Three coders received 20 h of training and needed to achieve 90% absolute agreement on five training videos before coding the current data set. To assess inter-rater reliability, 25% of the discussions were randomly selected to be coded by a second rater. In addition, reliability was assessed on videos when the main coder had questions or concerns about the determination of the behavior. In the current study, observed inter-rater reliability was adequate (mean ICC value = 0.86).

IFIRS: Supportive Behavior. Supportive behavior is a composite variable of seven scales from the IFIRS which were previously used in longitudinal examinations on family processes (Ackerman et al. 2011; Kim et al. 2001; Dinero et al. 2008). The scales used were warmth/support, communication, listener responsiveness, and prosocial, hostility (reverse coded), angry coercion (reverse coded), and antisocial (reverse coded). Warmth/support describes expressions of concern, empathy, or appreciation between family members. Communication describes how effectively partners convey ideas. Listener Responsiveness describes partner attentiveness and the ability to express interest. Prosocial describes cooperative and helpful behaviors. Hostility was coded as hostile, disapproving, rejecting, and critical behavior expressed towards the other family member. Angry coercion was indicated by behaviors that attempt to control or change the other family member's behavior with threats, blame, or hostile behaviors. Antisocial was indicated by behaviors that were self-centered, defiant, insensitive, or resistant. These scales are rated on a 9-point scale ranging from 1 (not at all characteristic) to 9 (mainly characteristic) separately for both family members by accounting for the frequency and intensity of the behaviors observed. They were averaged to compute the composite variable. Although the scales used can be separated into positive and negative interaction characteristics, we elected to combine these aspects of the interactions to produce a positive-oriented scale following the procedures



of past literature (e.g., [Dinero et al. 2008](#)), and due to the results of the exploratory factor analyses. The composite scale of supportive behavior had adequate internal consistency (parent  $\alpha = 0.80$ ; child  $\alpha = 0.87$ ).

**IFIRS: Directive Behavior.** Directive behavior is a composite variable of two scales from the IFIRS: dominance and lecture/moralize. Past research has defined a parent 'control' variable generated from the IFIRS dominance scale (e.g., [Anderson et al. 2015](#)), but we included the lecture/moralize scale in our directive behavior composite due to the conceptual similarities between the two scales. Dominance was coded as behaviors that served to control, influence, or dominate the opinions, actions, or points of view of others during the interactions. Lecture/Moralize was coded as the degree to which individuals presented information to partners in an intrusive, didactic, or overly pushy manner that did not allow for constructive conversation. The composite variable of directive behavior had adequate internal consistency ( $\alpha = 0.69$ ) but was just under the commonly used value for desirable reliability of 0.70.

**Child Functioning.** To assess child maladaptive behaviors and social problems, parents completed the Child Behavior Checklist (CBCL) for school-aged children ([Achenbach and Rescorla 2001](#)). The CBCL is a measure of child behavioral problems and functioning. This study uses three of the available scales from the CBCL designed for children aged 6 to 18: Anxiety Problems, Depression Problems, and Attention Deficit Hyperactivity Disorder (ADHD) Problems. These scales were developed according to the Diagnostic and Statistical Manual of Mental Disorders (DSM) diagnostic criteria for anxiety, depression, and ADHD. These scales are scored via a computer scoring program to produce standard scores and have adequate internal consistency (Anxiety:  $\alpha = 0.79$ , Depression:  $\alpha = 0.81$ , ADHD:  $\alpha = 0.85$ ). The CBCL has been frequently used and validated in samples of autistic children (e.g., [Havdahl et al. 2016](#)).

Autism symptoms were assessed by a licensed clinical psychologist using the ADOS-2 ([Lord et al. 2012](#)). The clinical psychologist was certified as research reliable on the administration and scoring of the ADOS-2. The ADOS-2 is a semi-structured assessment between a clinician and a child consisting of a variety of different observational tasks the child is asked to participate in. It is widely considered the most valid and objective assessment of the autism diagnosis and it produces two domain scores, Social Affect and Restrictive and Repetitive Behavior, and a Calibrated Severity Score. Social Affect describes the extent to which a child has social-communication difficulties, such as the lack of appropriate social responses. Restrictive and Repetitive Behavior is characterized by the presence of abnormal sensory or motor behavior (e.g., hand flapping), or a child's discussion of a circumscribed interest at length. The Calibrated Severity Score yields a measure of autism spectrum-related symptoms that can be used to compare children with similar language skills and age. Within the current study, all children in the ASD group received the ADOS-2, Module 3. All children who were recruited as part of the autism group met the criteria for ASD on the ADOS-2. Children recruited into the neurotypical group were not administered the ADOS-2.

#### 2.4. Data Analysis

**Exploratory Factor Analysis on IFIRS Codes.** Previous research has used composite scores and single-scale scores from the IFIRS (e.g., [Anderson et al. 2015](#); [Dinero et al. 2008](#)) that were identified using factor analysis in samples consisting of families that did not have children on the spectrum. Due to slight changes in our scale composites and a different population, exploratory factor analyses were conducted on the IFIRS codes for parents and children separately to validate our selection of composite scores. The Kaiser–Meyer–Olkin (KMO) test of sampling adequacy (parents, KMO = 0.81; children, KMO = 0.79) and Bartlett's test of sphericity (parents,  $\chi^2(36) = 305.31$ ,  $p < 0.001$ ; children  $\chi^2(36) = 243.78$ ,  $p < 0.001$ ) both indicated the adequacy of the factor model for the samples ([Gorsuch 1990](#)). Principal axis factoring was applied to 8 scales for each parent and each child. Examination of the scree plot led us to retain 2 factors for parents (explaining 77% of the total variance)

and 2 factors for children (explaining 71% of the total variance). Oblimin rotation was used as there was reason to expect that the factors could be correlated. Due to the small sample, factor loadings above 0.5 were used in the interpretation of the factor output (Stevens 1992). The results for both parent and child data revealed similar factor structures (see Supplementary Table S1). For both parent and child data, the supportive behavior factor consisted of high positive loadings for warmth, communication, listener responsiveness, and prosocial scales and high negative loadings for hostility, angry coercion, and antisocial scales. The directive behavior factor consisted of high positive loadings for the dominance and lecture/moralize scales.

**Supportive Behavior Comparisons.** Multilevel modeling was used to examine the comparisons between patterns of supportive behavior between parents or children by diagnostic group. The data were coded to identify family members within dyads (parent or child) for estimation as a fixed effect, and each dyad was given a unique numerical identifier that was applied to both individuals to be estimated as a random effect. Diagnostic group (autism or neurotypical) was also estimated as a fixed effect. The interaction between the fixed effect of family member and diagnostic group was then examined to explain the variance of supportive behavior coded from the IFIRS. To be conservative with the small sample size, the degrees of freedom were approximated using the Kenward–Roger adjustment. Due to the high levels of observed right skewness in the supportive behavior composite, the model was fitted to a gamma distribution, using the following equation using PROC GLIMMIX in SAS 9.4:

$$\text{SuppBeh}_{ij} = b_{0i} + b_{1i} \times \text{Diagnostic Group}_{ij} + b_{2ij} \times \text{Person}_{ij} + b_{3i} \times \text{Diagnostic Group}_i \times \text{Person}_{ij} + \varepsilon_{ij}$$

where Diagnostic Group = 0 for neurotypical, 1 for autism for individual  $i$  in dyad  $j$ , Person = 0 for Parent, 1 for Child.

**Directive Behavior Comparisons.** We used an ANOVA to examine diagnostic group differences on directive behavior exhibited by parents. To consider the likelihood of child interaction characteristics accounting for this group difference, we ran an ANCOVA including child supportive behavior as a covariate.

**Associations with Child Functioning.** We first compared the mean levels of anxiety, depressive, and ADHD problems between autistic and neurotypical children using  $t$ -tests. Pearson correlations were used to test the associations between the family interaction characteristics and child functioning variables. One participant did not fully complete the questionnaires and was excluded from the correlation analyses examining the associations between interaction characteristics and child characteristics. All data analyses were conducted using SAS, Version 9.4 (SAS 9.3) and SPSS, Version 25.

### 3. Results

#### 3.1. Do Parent–Child Interaction Characteristics Differ by Diagnostic Group?

**Supportive Behavior.** Table 2 contains the means on the two IFIRS composite variables by family member and diagnostic group. There was a significant interaction between the fixed effect of family member and diagnostic group ( $F(1,40) = 11.69$ ,  $MSE = 0.05$ ,  $p = 0.001$ ). The mean level of observed supportive behavior was significantly lower in autistic children as compared to parents of autistic children ( $t(40) = -5.12$ ,  $p < 0.001$ ,  $d = -2.19$ ), neurotypical children ( $t(69.01) = -2.76$ ,  $p = 0.007$ ,  $d = -1.44$ ), and parents of neurotypical children ( $t(69.01) = -2.98$ ,  $p = 0.004$ ,  $d = -1.67$ ). There was no significant difference between parents of autistic children and parents of neurotypical children ( $p = 0.30$ ), and there was no significant difference between the means of parents of neurotypical children and neurotypical children on the levels of supportive behavior ( $p = 0.59$ ).

**Table 2.** Child and Parent IFIRS Composite Means by Diagnostic Group.

IFIRS Composite	Autistic Youth	Parents of Autistic Youth	Neurotypical Youth	Parents of Neurotypical Youth
Supportive Behavior	6.48 (1.42) <sup>a,b,c</sup>	7.99 (0.78) <sup>a</sup>	7.48 (0.87) <sup>b</sup>	7.63 (1.40) <sup>c</sup>
Directive Behavior	-	4.60 (1.82) <sup>g</sup>	-	3.48 (1.61) <sup>g</sup>

Note: Matched letters denote significant pairwise differences from univariate multilevel models ( $p < 0.05$ ).

Directive Behavior. Parents of autistic children had higher observed levels of directive behavior than parents of neurotypical children ( $F(1,40) = 4.45$ ,  $MSE = 2.95$ ,  $p = 0.04$ ,  $d = 0.65$ ). The diagnostic group difference was significant after including child supportive behavior as a covariate:  $F(1,39) = 4.69$ ,  $MSE = 2.80$ ,  $p = 0.04$ ,  $d = 0.62$ .

Associations between Parent and Child Interaction Characteristics. Within both diagnostic groups, there was a strong positive correlation between child and parent supportive behavior (Autism:  $r(19) = 0.54$ ,  $p = 0.01$ ; Neurotypical:  $r(19) = 0.49$ ,  $p = 0.02$ ). There was no significant relation between child supportive behavior and parent directive behavior in either group (Autism:  $r(19) = -0.29$ ,  $p = 0.21$ ; Neurotypical:  $r(19) = -0.26$ ,  $p = 0.25$ ).

### 3.2. Are Interaction Characteristics Related to the Characteristics of Children with ASD?

Table 3 contains the means and standard deviations of the child functioning variables for children on the autism spectrum and neurotypical children. Autistic children had higher levels of anxiety problems, depression problems, and ADHD problems, as measured by the CBCL.

**Table 3.** Means of Child Functioning Variables by Diagnostic Group.

	Autism	Neurotypical	<i>p</i> -Value
CBCL—Anxiety Problems	60.15 (9.18)	52.11 (3.29)	0.001
CBCL—Depression Problems	58.50 (8.59)	51.33 (1.94)	0.001
CBCL—ADHD Problems	65.50 (9.50)	53.11 (5.47)	<0.001

Note: CBCL = Child Behavior Checklist. All measures are parent-reported.

Child Characteristics and Parent Interaction Characteristics. Table 4 contains the correlation values between interaction variables and child functioning variables by family member. There were negative associations at a medium effect size between parent supportive behavior and ADHD problems ( $r(18) = -0.37$ ,  $p = 0.11$ ) and between parent supportive behavior and anxiety problems from the CBCL ( $r(18) = -0.31$ ,  $p = 0.18$ ), although neither was statistically significant. There was a significant relation between parent directive behavior and anxiety symptoms ( $r(18) = 0.48$ ,  $p = 0.03$ ).

**Table 4.** Pearson Correlations Between IFIRS and Characteristics of Children on the Autism Spectrum.

	Parent Supportive Behavior	Child Supportive Behavior	Parent Directive Behavior
ADOS-2 Total Score	0.07	-0.35	-0.19
CBCL Anxiety	-0.31	0.09	0.48 *
CBCL Depression	0.11	0.15	0.01
CBCL ADHD	-0.37	-0.49 *	-0.01

Note: ADOS-2 = Autism Diagnostic Observation Schedule; RRB = Repetitive and Restrictive Behaviors; CSS = Calibrated Severity Score; CBCL = Child Behavior Checklist. All measures parent-reported. \*  $p < 0.05$ ;  $n = 20$ .

Child Characteristics and Child Interaction Characteristics. There was a non-significant association with a medium effect size between the ADOS-2 total score and child supportive behavior ( $r(18) = -0.35$ ,  $p = 0.12$ ), indicating higher observed child supportive behavior was related to fewer autism symptoms, as rated by a clinician. In addition, there was a neg-

ative association between ADHD problems and child supportive behavior ( $r(18) = -0.49$ ,  $p = 0.02$ ).

#### 4. Discussion

The 21st century has brought increased understanding of autism and evidenced-based treatments, but descriptive data on how autism might affect parent–child relationships in late childhood have been missing. While some of the challenges that parents of autistic children experience in their mental health have been explored, the current study expands upon our awareness of the support that parents provide their autistic children, and potential challenges they may face. Our aims were to (1) test whether parent–child interaction characteristics differ between families of neurotypical and autistic children in late childhood when coded from observations, (2) to investigate the concordance between child and parent characteristics, and (3) to examine how interaction characteristics relate to child autism symptoms and symptoms of co-occurring conditions.

There were no discernable differences between parents of autistic children and parents of neurotypical children in the levels of supportive behavior, a composite of positive oriented scales, such as warmth/support and listener responsiveness, and reverse coded negative oriented scales, such as hostility and angry coercion. These results resemble evidence from other studies finding no differences in the security of attachment, perceptions of parental availability, and positive parenting in families of autistic children compared to families of neurotypical children in middle to late childhood (e.g., [Chandler and Dissanayake 2014](#)). This pattern of results also echoes the historical and contemporary literature on parents of younger autistic children which has demonstrated only minor differences in the percentages of parent–child dyads with secure attachments as compared to families of neurotypical children (e.g., [Rogers et al. 1991](#); [Rutgers et al. 2007](#); [Teague et al. 2017](#)). The continuation of these findings into late childhood is a testament to the resiliency of parents of autistic children and their ability to foster positive developmental environments, often in the context of high levels of stress. Although empirical studies in the 20th century debunked the historical misconceptions that low levels of parental warmth might cause autism, colloquially known as the ‘refrigerator mother theory’, parents continue to feel stigmatized for their parenting behavior from community members and extended family members in terms of their parenting, especially when high amounts of externalizing symptoms are exhibited by their children ([Dale et al. 2006](#); [Gray 2002](#); [Neely-Barnes et al. 2011](#)). The current data offer a compelling portrayal of warmth, support, and responsiveness in parents of autistic children, and further rebuke historical misconceptions of low parenting quality in this population.

The symptoms of autism were not associated with parent supportive behavior. Theoretically, the symptoms of autism might complicate positive interaction patterns if they interfere with displays of engagement, reciprocity, and positive affect. In addition, many studies have documented high amounts of parenting stress in families of children on the autism spectrum, which could undermine a parent’s ability to positively engage over time. However, our data show that parents of autistic children had similar levels of supportive behavior to parents of neurotypical children, often in the presence of lower levels of supportive behavior exhibited by their children (although autistic children may display supportive behavior differently to their neurotypical peers). Supportive behavior was also strongly correlated between parents and children. This finding is consistent with studies that have employed observations of the parent–child dyad in families of autistic children. Increased parental positive affect through intervention has been associated with subsequent increases in children’s positive affect ([Solomon et al. 2008](#); [Siller and Sigman 2008](#); [Freeman and Kasari 2013](#)). If longitudinal evidence corroborates the reciprocating effects of supportive parent–child interaction characteristics, this evidence will further suggest that similar to interventions for younger autistic children (e.g., [Goods et al. 2013](#)), coaching supportive behaviors in parents may also be effective in augmenting children’s social behavior during late childhood.

Previous longitudinal studies on autistic adolescents have found bidirectional associations between indices of the parent–child relationship, as measured from the FMSS and mental health concerns, including internalizing symptoms, externalizing symptoms, and autism symptoms, (e.g., [Orsmond et al. 2006](#); [Smith et al. 2008](#); [Woodman et al. 2015](#)). Although limited due to our small sample size and the cross-sectional design, our correlation results support this past literature. We found that both parent and child supportive behavior was significantly associated with fewer ADHD symptoms rated by parents. This finding suggests that a child’s ability to regulate their attention may be associated with supportive characteristics of parent–child relationships. Perhaps, lower levels of warmth are exhibited by parents who are trying to get their child to focus on the structured discussion task. Alternatively, children with higher levels of ADHD symptoms may have difficulties attending to and communicating with their parent in a structured discussion, which would negatively impact the frequency of supportive behaviors children exhibit. In addition, our results resemble past research that has found that ADHD symptoms can increase negativity in the parent–child relationship in children without autism (e.g., [Lifford et al. 2008](#)) and, therefore, suggest similar mechanisms are plausible in families of autistic children. Future studies should examine parent–child interactions across structured and unstructured tasks to obtain a more holistic picture of these characteristics in late childhood.

Within our sample, there were significantly higher levels of directive behavior in parents of autistic children compared to parents of neurotypical children. Higher levels of parent directive behavior were associated with higher levels of child anxiety problems, but not depression, for children on the autism spectrum. This finding is preliminary and future studies are needed to understand the temporal relationship between anxiety symptoms and parent directive behavior. Past literature on neurotypical youth demonstrated that high levels of psychological control exhibited by parents during preadolescence were associated with higher levels of depression and anxiety in adolescence ([Pettit et al. 2001](#)). The reasoning used in these findings is that a child’s budding autonomy may be thwarted by an intrusive parent, thus shaping their insecurities and anxiety. However, our definition of directive behavior is different to the concept of “psychological control”, which contains characteristics of hostility (see [Barber and Harmon \(2002\)](#)). Our construct of directive behavior, which was a composite of the dominance and lecture/moralizing codes from the IFIRS, may not be associated with as many negative outcomes as a conceptual definition that includes hostility. Alternatively, parents may be providing more guidance when their children are anxious, in an effort to help alleviate these symptoms, which may be an effective approach. Many early interventions and parent-mediated therapy programs employ guided support and scaffolding to teach social, communication, and adaptive skills (e.g., [Pickles et al. 2016](#)), so autistic children appear to benefit from more directive parenting than neurotypical children. Given that anxiety is a concern for an estimated 42% of autistic adolescents with ASD ([Simonoff et al. 2008](#)), it will be important to continue to investigate the relation between parent directive behavior and anxiety to better understand how these characteristics are related over time.

#### *Strengths and Limitations*

Several limitations must be considered in the current results. First, the small sample size limit the generalizability of this study and our ability to make conclusions about results involving correlations. The participants had average levels of intellectual functioning and the majority were boys, so the current pattern of findings may not apply to families of autistic children with intellectual disability or to families of autistic girls. The cross-sectional design of the current study also limits our ability to draw conclusions about directionality. In addition, although we were able to gather rich family demographic information, we were unable to examine commonly known moderators of family processes in neurotypical development, including family income, race and ethnicity, and the gender of parents and children. Parenting and parent–child interactions likely have influence on the trajectory of autism symptoms and conditions that co-occur with autism. Researchers have called for



the examination of processes that moderate the relations between etiological risk factors and the severity of autism symptoms (Mundy et al. 2007), and parent–child interactions have been identified as a promising influence on the development of variability observed within the population (see McCauley et al. (2019)). Future research should investigate how varying family contexts moderate interaction characteristics and autism symptoms across time in families of autistic children.

In addition, the study does not address the possibility of genetic influences between children and parents, as we had no measure of genetic makeup or any measures of relevant symptoms in parents. For example, as autism and anxiety both have genetic etiological contributions, how parent levels of anxiety or phenotypic autism symptoms relate to the quality of parent–child interactions with their children is unknown. Levels of phenotypic autism symptoms in parents are related to their experience of parenting stress (Ingersoll and Hambrick 2011), but it is possible that these symptoms may create differences on observable interaction characteristics. Additionally, our study was limited by reliance on questionnaire data to examine the associations between child functioning and features of the parent–child interaction.

Our study has several strengths. First, we had a well-characterized sample of autistic children and used robust measures to verify diagnosis. Second, the sample was also matched on age, gender composition, and assessments of cognitive ability to a sample of neurotypical children, allowing us to better specify differences in family interaction characteristics. Third, we used an observational coding scheme that helped discover unique features of interactions that may not be adequately captured on parent-reported questionnaires. We have demonstrated that observational coding methodology is feasible and informative to the study of parent–child relationships in families of autistic children, so future research should strive to incorporate larger samples and more diverse measurements of child characteristics.

## 5. Conclusions

### 5.1. Implications for Parenting in the 21st Century

In the 21st century, parenting autistic children requires a balance between providing optimal support and direction. While neurotypical children tend to benefit from support and additional autonomy as they mature, autistic children may benefit from more directive parenting, as compared to neurotypical children, in addition to their parent’s support at least into late childhood. This is an important nuance, considering that parents are commonly employed to modify and scaffold their autistic children’s behavior through parent intervention programs. Critically, parents in the current study displayed high levels of warmth, engagement, and enjoyment during interactions with their children and these parent interaction characteristics were not associated with autism symptoms. While reports have documented high levels of parenting stress associated with autism, there remains little concern that autism itself instills negative patterns of parent–child interactions.

### 5.2. Implications for Future Research and Practice

The results of this study have implications for future research and practice. First, we need to better understand how the parent–child relationship in families of autistic children develops, and how families navigate interactions in the presence of social and communication challenges. Second, providers for families of autistic children should understand and emphasize that the developmental needs of autistic children are likely different than the needs of neurotypical youth in terms of parent support and autonomy-granting, and should converse with families about their child’s individual needs accordingly.

**Supplementary Materials:** The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/socsci11030100/s1>, Table S1: Parent Demographic Information, Table S2: Factor Loadings on Iowa Family Interaction Scales.



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# EXHIBIT T



# The Importance of Incorporating Siblings in the Treatment of Autism Spectrum Disorder

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## Introduction

According to the Centers for Disease Control and Prevention (CDC, 2009), an average of 1 in 110 children in the United States has an autism spectrum disorder (ASD). ASD is commonly characterized by severe deficits in social communication and interaction that can be seen in various ways such as poor nonverbal communication, inappropriate social exchanges, or lack of skills in developing, maintaining, and understanding relationships (APA, 2013). Along with better awareness and diagnosis of this illness over the last few decades, a multitude of intervention programs have been developed to treat ASD.

The most popular and commonly known treatment method for ASD is Lovaas' Applied Behavioral Analysis (ABA) treatment (Smith & Eikeseth, 2011). This modality of treatment involves a structured intervention style consisting of three main components: pharmacological care/medication management, parent education and training, and behavioral interventions (Smith & Eikeseth, 2011; Tsao, Davenport, and Schmiede, 2012). Research has examined these three domains of treatment, along with various forms of parenting training, to determine how best to incorporate these in the treatment of ASD. For instance, Aldred, Green, and Adams (2004) found that involvement of parents promoted the child's knowledge of effective communication skills, decreased parenting stress, and improved the parent-child relationship.

Because of the neurodevelopmental nature of ASD, current treatment modalities such as pharmacological or psychological interventions do not completely relieve the social and behavioral challenges seen in children with ASD. While current interventions for ASD emphasize the involvement of parents and their relationship with their child, current theory and research has only begun to examine the value of including siblings in the ASD treatment. The goal of this paper is to examine the benefits of incorporating non-ASD siblings in the treatment of children with ASD.

## Educating the Non-ASD Sibling(s)

Psychoeducation is a key first step in the process of developing a treatment plan for ASD. Providing families with information about the symptoms and challenges caused by ASD gives them a deeper understanding of the struggles they may face. Although clinicians often focus their efforts on educating parents of children with ASD to prepare them for difficulties throughout the child's lifespan, siblings can also benefit from age-appropriate information about the illness.

Most children and adolescents do not understand the complexity of ASD. Some parents will attempt to educate their children or mistakenly "excuse" misbehaviors of the child with ASD under the pretense of symptoms (Chan & Goh, 2014). In response, siblings may grow resentful towards the child with ASD for receiving more attention from parents or "getting away" with things (Chan & Goh,



2014). They may even begin to develop negative feelings towards their sibling or withdraw from him or her.

McHale and Gamble (1989) suggest that educating siblings about ASD can help them better understand their parents' interventions at home. It can also help them learn to model their parents' healthy interpersonal strategies — both directly in their relationship with their sibling with ASD, as well as in social situations in which other children are interacting with their sibling. Helping children to better understand ASD can also further their acceptance of the differences of others (McHale & Gamble, 1989).

McHale and Gamble (1989) found that when siblings have a good understanding of their brother or sister's disability, they were more likely to have a positive sibling relationship. Other studies demonstrate that siblings with a better understanding of ASD are more likely to have higher self-acceptance, increased social competence, greater admiration for their siblings, and less sibling competition and quarrels (Kaminsky & Dewey, 2001; Knott, Lewis, & Williams, 1995; Tsao et al., 2012).

### Identifying Siblings at Risk for Emotional Distress

Compared with families without ASD, families containing a child diagnosed with ASD often experience additional stressors such as coping with the child's behavioral difficulties, challenges in the parent-child relationship, financial stress, lack of co-parenting support, stigmatization of the child's disorder, and the time required for interventions (Lavelle et al., 2014; Kogan et al., 2008).

One additional potential difficulty involves emotional distress experienced by the other children in the home. Studies of non-ASD siblings' levels of emotional distress have shown mixed results. While some studies have found positive impacts on non-ASD siblings such as increasing self-understanding or developing prosocial behaviors (Tsao et al., 2012), other studies have found increased levels

of internalizing behaviors such as loneliness, feelings of embarrassment, depression, attentional issues, poor peer interactions, and anxiety (Dyson, 1999; Griffith, Hastings, Petalas, & Lloyd, 2015; Pilowsky, Yirmiya, Doppelt, Gross-Tsur, & Shalev, 2004; Platt, Roper, Mandelco, & Freeborn, 2014). In addition, certain behavioral problems that are associated with ASD (e.g., aggression or temper outbursts) can cause negative emotions and damage the relationship (Pollard, Barry, Freedman, & Kotchick, 2013; Tsao et al., 2012). As part of the treatment planning process for children with ASD, Rao and Beidel (2009) emphasized the importance of assessing the family for additional stressors. Symptoms of ASD can be exacerbated when additional sources of stress affect the family as a whole, or its individual members. Family stress can significantly limit treatment compliance (Rao & Beidel, 2009). For example, if parents view between-session work (i.e. homework assignments, self-monitoring) as an unnecessary component of treatment — or as added stress — they are not likely to follow through on interventions. Identifying and reducing the stress experienced by all family members can significantly improve the success rate of treatments for children with ASD. For this reason, addressing parent and/or sibling stress should be a necessary component of the overall treatment plan to improve family functioning.

When clinicians include siblings in the treatment for ASD, they have an opportunity to monitor the emotional well-being of all the children in the family. Another advantage of involving siblings in the treatment of children with ASD is that these interventions can serve to reduce siblings' risk of developing mental and physical health problems.

### Improving Sibling Relationships

Siblings are often considered a primary source of companionship, help, and emotional support (Tsao et al., 2012). According to Kaminsky and Dewey (2001), children with ASD and their siblings have relationships that tend

to have “less intimacy, less prosocial behavior and less nurturance” (Kaminsky & Dewey, 2001, pp. 399). Other research suggests that children with ASD spend less time with their siblings compared with typically developing sibling dyads (Dyson, 1999; Hastings, 2007; Kaminsky & Dewey, 2001; Tsao et al., 2012).

Involving siblings in the treatment of children diagnosed with ASD can be beneficial in increasing social support within the relationship. It can also serve to increase positive interaction among the siblings, while also decreasing the frequency of negative interactions (Pollard et al., 2013). Strengthening sibling relationships can also be a key component in the effort to improve family health. For example, positive relationships have been found to be a buffer against anxiety and stress for siblings of children with ASD (Pollard et al., 2013).

### Supporting the Social Skill Development of Children with ASD

Because one of the primary symptoms of ASD is deficits in social interaction, research supports the use of targeted treatment components such as social skills groups or social skills training (Huber & Zivalich, 2004; Smith & Eikeseth, 2011). Interactions between siblings can increase many social and cognitive skills that are essential to healthy social development (Tsao et al., 2012). However, using sibling relationships to help promote healthy social skills development in children with ASD is often overlooked.

Siblings provide children with ASD a unique opportunity to practice appropriate peer social skills under optimized supportive conditions (Rivers & Stoneman, 2003; Rivers & Stoneman, 2008). In a recent study, White et al. (2010) investigated behavioral interventions for adolescents with ASD, including inviting non-ASD siblings to assist the child with ASD in practicing behavioral techniques that promote positive social interaction and reduce social anxiety. The interventions were effective in promoting social skills,

decreasing social anxiety, and improving perceptions of the sibling relationship (White et al., 2010).

One of the challenges of ASD is identifying appropriate strategies for addressing each level of symptoms. Experts suggest carefully evaluating the ways in which siblings can be involved in tailoring the treatment to the differing needs of high-functioning versus low-functioning children with ASD (White et al., 2010). Siblings help shape experiences and learning opportunities in the family, which can encourage children with ASD to develop prosocial skills and experiences. Because social skills deficits are symptoms seen across the spectrum, many children with varying levels of severity of ASD can benefit from having their siblings involved in social skills training (Tsao et al., 2012).

### Conclusion

Sibling relationships are lifelong, and often constitute one of the most important relationships in an individual's life. Involving siblings in the treatment of children with ASD has many advantages. Siblings can also directly benefit in a variety of ways, including increasing their understanding of ASD, providing them unique learning opportunities, and promoting the development of their skills related to confidence, leadership, modeling, and teaching (Gamble & McHale, 1989; Griffith et al., 2015; Platt et al., 2014; Rao & Beidel, 2009; Tsao et al., 2012). Due to the lack of research investigating the impact of involving siblings in the treatment of ASD, future autism research would benefit by increasing its focus on the benefits and methodology of including siblings in treatment.

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## Author Biography



Julie A. Saflarski, PsyD, is a clinical postdoctoral fellow with The Family Institute at Northwestern University. She received her Bachelor of Arts degree in psychology with a double minor in English and Community Conflict Resolution at North Central College and completed her Master of Arts in Counseling Psychology and Doctorate in Clinical Psychology at Adler University. Her clinical interests focus on treating children, adolescents, and families who struggle with symptoms of anxiety, depression, special needs, and developmental disabilities. She also works to help support parents and families to best promote healthy development and resilience in their children.

# EXHIBIT U

# Gender Dysphoria in Children with Autism Spectrum Disorder

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## Abstract

**Purpose:** While gender dysphoria (GD) and autism spectrum disorder (ASD) are generally identified in isolation, research on individuals who are gender-referred or have autism suggests a possible overrepresentation of ASD in persons with GD and GD in persons with ASD. We investigated diagnosed GD in patients formally diagnosed with ASD and matched controls in the Military Health System.

**Methods:** We performed a retrospective case-cohort study of GD diagnoses in children aged 2–18 years with and without ASD utilizing health care records from 2000 to 2013. Cases were formally diagnosed with ASD and matched to five controls by date of birth, gender marker, and enrollment time. Outpatient visits for GD were identified by relevant *International Classification of Diseases, Ninth Revision* codes. Logistic regression analysis determined odds ratios (ORs) and 95% confidence intervals (95% CIs) of GD diagnoses by ASD.

**Results:** A total of 48,762 children with diagnosed ASD were identified, and each matched to five controls, for a total of 292,572 children. Cases and controls were each 80% assigned male at birth. The median end age of included children was 11.6 years. Of included children, 66 (0.02%) had diagnosed GD. Children with ASD were over four times as likely to be diagnosed with a condition indicating GD (OR 4.38 [95% CI 2.64–7.27],  $p < 0.001$ ) compared with matched controls.

**Conclusion:** This study corroborates previous research indicating an overrepresentation of GD in children with ASD. Further research is needed to understand the association and to demonstrate approaches to providing optimal care to these children.

**Keywords:** association, autism, gender dysphoria, LGBT, transgender

## Introduction

AUTISM SPECTRUM DISORDER (ASD) is an impairment in social communication and interaction, which may include restricted and/or repetitive patterns of behavior, persisting from early childhood.<sup>1</sup> ASD ranges in severity and overall impairment from individual to individual,<sup>1</sup> and it is estimated to affect 1 in 59 children aged 8 years.<sup>2</sup>

Gender dysphoria (GD) is the persistent distress experienced when there is a difference between an individual's gender identity and that individual's assigned sex at birth<sup>1,3</sup> and is experienced by a subset of the larger transgender and gender-diverse (TGD) population.<sup>4</sup> A 2017 survey estimates that 0.7% of individuals aged 13–17 years, or approximately 150,000 adolescents in the United States, iden-

tify as transgender.<sup>5</sup> TGD youth may be at risk for psychiatric conditions, including depression, anxiety, and suicidality.<sup>3,6,7</sup>

ASD and GD are generally identified in isolation; however, a growing body of literature suggests an overrepresentation of ASD in persons with GD and GD in persons with ASD.<sup>8–15</sup> Studies of children, youth, and adults with GD have identified symptoms suggestive of ASD or Asperger's syndrome at higher than anticipated rates.<sup>9–12,14,16–18</sup> Similarly, studies with samples ranging from 39 to 490 children and adolescents referred to TGD specialty clinics have found increased symptoms of ASD based on parental report or chart review.<sup>9–11,13,16,19</sup> One study identified adolescents referred for TGD-related services, who had been previously treated for psychiatric conditions, and found that 12 (26%) of 47 included children had received referrals or care for

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ASD.<sup>14</sup> Another study used a diagnostic instrument known to successfully identify disorders within the broader autism spectrum to ascertain ASD classification and found that almost 8% of children with GD met criteria for ASD.<sup>11</sup>

A smaller set of studies has included samples of children with known ASD and used parent response questionnaires to explore constructs related to gender identity. These studies with populations of 147–176 children with ASD or Asperger's syndrome found a higher than expected likelihood of parents indicating that their children would sometimes or often “wish to be the other gender.”<sup>20,21</sup> A larger study of 675 adolescents and adults with ASD or Asperger's syndrome also found self-reported feelings of gender nonconformity at higher than expected rates, consistent with previous research. Females in this study reported TGD identity at a higher rate than males.<sup>15</sup>

While the existing literature suggests an overrepresentation of the co-occurrence of GD and ASD, most studies include a population of children who have been referred for TGD-related issues or have been diagnosed with ASD and use surveys to identify traits of the other condition. Because the survey results can be based on single responses and are often completed by parents, they may not be accurate assessment tools for children with ASD.<sup>22,23</sup> As noted in a recent literature review of research associating ASD and GD,<sup>24</sup> there are no studies examining the co-occurrence of diagnoses of both experiences that compare rates with a control group in children.<sup>9–13,15,16,20,21,24</sup> One study examining adult Medicare beneficiaries demonstrated a higher percentage of diagnosed ASD in those diagnosed with GD (3.0%) compared with those without diagnosed GD (0.3%); however, the extent to which this generalizes to pediatric populations is unknown.<sup>25</sup>

Both ASD and GD may be difficult to diagnose, allowing for some false positives in study designs of previous research. Questions pertaining to social discomfort, awkwardness, and specific sociocultural constructs could represent either experience and possibly conflate these constructs.<sup>14,26,27</sup> In addition, children with ASD have increased rates of mental health conditions, which may obscure the diagnosis of either GD or ASD.<sup>28,29</sup>

This study aims to explore the occurrence of diagnosed GD in a population of patients who have been formally diagnosed with ASD versus matched controls of all youth who do not have an ASD diagnosis, in a large universal health care system. We hypothesize that the rate of patients with GD in a population of patients with ASD will be elevated compared with a matched control population of patients without ASD. The finding of an overrepresentation of GD in persons with ASD has potential to impact research on, policy related to, and treatment of both conditions.

## Methods

We performed a retrospective case-cohort study of GD diagnoses in children with and without ASD utilizing health care records for the Military Health System (MHS) database. The study was reviewed and approved by the Uniformed Services University Institutional Review Board. The MHS provides comprehensive care to over 500,000 dependent children of active duty and retired military members who are diverse and generally receive long-term comprehensive

care.<sup>30</sup> The database includes all inpatient and outpatient health care records for all United States uniformed services members and eligible dependents cared for in military and civilian facilities domestically and abroad. Cases include children aged 2–18 years with an *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM) code for ASD (299.90, 299.91, 299.80, 299.81, 299.00, and 299.01) at two separate clinical encounters, a previously validated method for identifying children with ASD.<sup>31,32</sup> Records of children aged 2–18 years were queried to identify the earliest ASD diagnosis. Exclusion criteria included ICD-9-CM diagnostic codes 330.8, 299.10, and 299.11, which include Alpers syndrome, Rett syndrome, and childhood disintegrative disorder.

All cases were enrolled in the MHS in 2000–2013 for at least 6 months before, and 6 months after, their ASD diagnosis. Cases were matched without replacement to five controls among the general population by date of birth, gender-marker assigned at birth, and MHS enrollment time. Enrollment time for the controls was equal to or longer than that of the case. After matching was completed, all enrollment times for controls were cropped to match the case. This resulted in all cases matched to five controls with the same date of birth, sex assigned at birth, and length of care.

Outpatient visits for GD were identified by ICD-9-CM codes for gender identity disorder or transsexualism (302.6 or 302.85—gender identity disorder; 302.50, 302.51, 302.52, and 302.53—transsexualism), an established method of identifying individuals with GD.<sup>25,33</sup> Notably, the terms suggestive of GD have been updated in more recent versions of the ICD, and the use of these codes to identify GD in this study may not represent a diagnosis appropriate for all TGD persons. Children with a visit with one or more of these ICD-9 codes at some point in their health care record met study criteria for GD.

## Statistical analyses

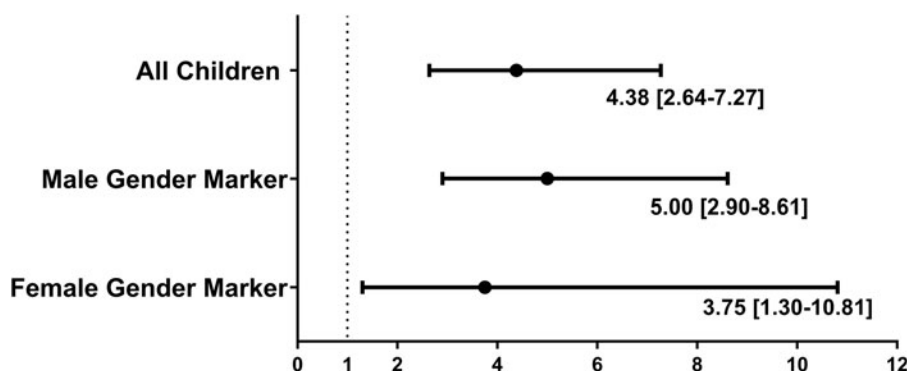
Conditional logistic regression analysis was used to determine odds ratios (ORs) and 95% confidence intervals (95% CIs) of GD diagnosis by ASD status. Chi-squared analysis was used to compare children with and without ASD. Analyses were conducted using SAS 9.4 (SAS Institute Inc., Cary, NC), and *p*-values of <0.05 were considered statistically significant.

## Results

There was a total of 48,762 children with diagnosed ASD identified in the MHS and included in the study. Each child was matched to five controls without ASD, for a total of 292,572 included children. MHS care of included individuals was tracked for a mean (standard deviation) of 8.83 (3.44) years, with a median start age of 1.3 years (interquartile range [IQR] 0.1–5.2) and a median end age of 11.6 years (IQR 7.8–16.0). Cases and matched controls were each 80% male-assigned at birth, which mirrors the male predominance of ASD. Most individuals (99.8%) were matched on the exact date of birth; when not matched on birth date, the mean difference in date of birth was 2.1 days with a maximum difference of 35 days.

A total of 292,572 children were included, and 66 (0.02%) had diagnosed GD. Of the 48,762 children with ASD, there





**FIG. 1.** Odds ratio of gender dysphoria diagnosis by autism spectrum disorder diagnosis.

were 32 (0.07%) children with a coexisting GD diagnosis. Of 243,810 matched controls without ASD, 34 (0.01%) children had a GD diagnosis. One child with ASD carried a diagnosis of indeterminate sex and pseudohermaphroditism (752.7) and was not diagnosed with GD. Most children were diagnosed with gender identity disorders (ICD-9 302.6 or 302.85), including 28 children with coexisting ASD and 32 children without ASD. Six children with ASD and six children without ASD were diagnosed with transsexualism. In unadjusted conditional logistic regression analysis, children with ASD were over four times more likely to be diagnosed with GD compared with matched controls (OR 4.38 [95% CI 2.64–7.27],  $p < 0.001$ ). In unadjusted conditional logistic regression restricted to those with a male gender marker at birth, those with ASD were five times as likely to be diagnosed with GD as those without ASD (OR 5.00 [95% CI 2.90–8.61],  $p < 0.001$ ). In analysis restricted to those with a female gender marker, those with ASD were over three times as likely to be diagnosed with GD (OR 3.75 [95% CI 1.30–10.81],  $p = 0.014$ ; Fig. 1).

Of all children without ASD, 455 (0.19%) had diagnosed intellectual disability; none of these children had a diagnosis of GD. Furthermore, of the 48,730 children with ASD and no GD, 2751 (5.7%) also had a diagnosed intellectual disability. Of the 32 children with ASD and GD, 3 (9.4%) also had a diagnosed intellectual disability.

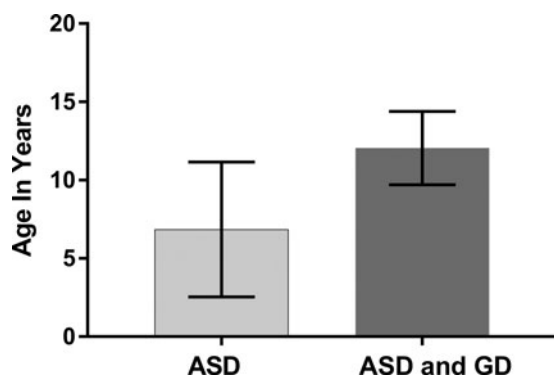
For children with ASD, the median age of ASD diagnosis differed by GD diagnosis. Children with GD were diagnosed with ASD at a significantly older age than children with ASD and no GD diagnosis ( $p < 0.001$ , Fig. 2). For children with ASD but no GD, the median (IQR [range]) age of ASD diagnosis was 6.5 (4.2 [3.8–10.4]) years, and for children with

ASD and GD, the median age of ASD diagnosis was 11.3 (3.7 [9.9–13.7]) years. The median age of GD diagnosis in those with ASD was 13.4 (6.9 [4.6–17.7]) years, and the median age of GD diagnosis in those without ASD was 11.0 (8.5 [3.6–17.9]) years, a difference that was not statistically significant ( $p = 0.100$ ).

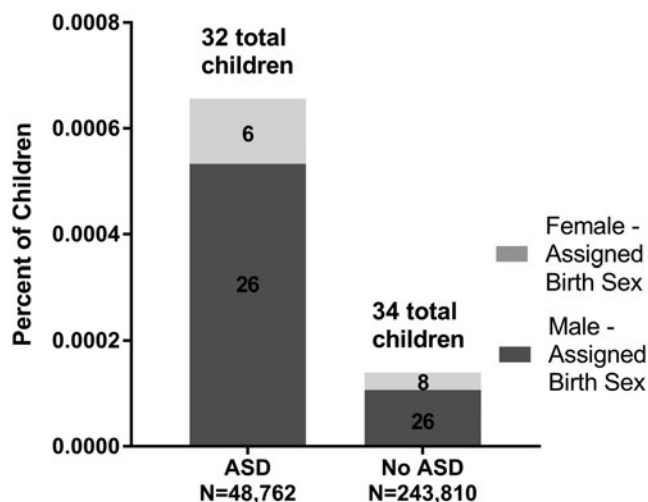
In the total sample, 20% of included children were assigned at birth as female, which is consistent with rates seen in ASD. Of children with diagnosed GD without ASD, eight (23.5%) children were assigned at birth as female. For children with ASD, six (18.8%) children with GD were assigned at birth as female. For children without ASD, female sex assignment at birth was not significantly associated with the likelihood of having a GD diagnosis ( $p = 0.26$ ). For children with ASD, those assigned at birth as female were less likely to have diagnosed GD compared with those assigned male at birth ( $p = 0.03$ , Fig. 3).

## Discussion

In a large population of continuously insured children, we found that children with diagnosed ASD were over four times more likely to have diagnosed GD compared with those without ASD. We also found that in children with ASD and GD, autism was diagnosed at a significantly older age than in children without GD. Using a robust measure



**FIG. 2.** Autism spectrum disorder diagnosis age by gender dysphoria diagnosis.



**FIG. 3.** Sex assigned at birth of children with diagnosed gender dysphoria.

of both ASD and GD,<sup>25,31–33</sup> and using cases with ASD and matched controls, our finding is consistent with previous research suggesting an overrepresentation of diagnosed GD in children diagnosed with ASD.<sup>8–11,21</sup>

Estimates indicate that between 0.16% and 0.58% of U.S. adults identify as transgender, gender-diverse, or gender non-conforming<sup>34,35</sup> and 0.7% of those aged 13–17 years identify as transgender.<sup>5</sup> Our rate of 0.02% of all included children having GD was considerably lower than these estimates as we were not examining the broader TGD population. This study also examined younger children, whose median age at the time of the study's completion was 11.6 years. While research suggests that children generally first understand themselves to be transgender at age 8,<sup>6,36,37</sup> children may not yet have addressed their TGD identity with parents or may have not reached the point where they required TGD-related medical care.<sup>38</sup> Prior research suggests ages 10–14 as the mean age of GD diagnosis.<sup>7,36</sup> In a recent qualitative study, some children with ASD reported that their gender identity has been questioned due to their ASD diagnosis, suggesting difficulties or delay in GD diagnosis in those with ASD.<sup>38</sup>

In addition, our study looked at health care records ending in 2013; however, there was no stated policy of caring for military-dependent children with GD until 2016.<sup>39</sup> While services certainly were provided to some children before this date, there is likely an underreporting of GD services in this population. Even with the implementation of the 2016 policy in the MHS allowing provision of care for military-dependent children and spouses who are transgender, many military providers are unwilling or unprepared to care for TGD children,<sup>40</sup> which likely skews results to underestimate numbers of military children who are TGD.<sup>41</sup> Furthermore, military parents may be more traditional,<sup>42</sup> and as a result, may be less likely to openly seek medical care for their child's TGD-related needs, regardless of official policy. While these factors likely contribute significantly to an underestimation of true GD numbers, it suggests that existing GD diagnoses are valid.

In a population that was 20% female-assigned at birth, we found that 18.8% of children with ASD and GD were female-assigned at birth, as opposed to 23% of children without ASD who had diagnosed GD. While birth-assigned sex was not associated with GD in children without ASD, in this study, children with ASD and GD were statistically less likely to be assigned at birth as female compared with children with GD but without ASD. Results for those without ASD are consistent with research indicating that TGD identity is more common in birth-assigned girls, but not for those with ASD and GD.<sup>36</sup> When odds of GD by ASD were stratified by birth-assigned sex, odds of GD in those assigned as male at birth were higher than those assigned as female at birth; however, CIs of the two analyses overlapped. This finding also is inconsistent with previous research that indicates that GD in children and adults with ASD is more common in birth-assigned females.<sup>15</sup>

Our findings are consistent with research indicating that those assigned female at birth are more likely to have GD, although in our study, this finding was only true in children without ASD.<sup>14</sup> This may suggest a genetic or biological link between ASD and GD but is more likely related to difficulties in diagnosing ASD in females.<sup>43</sup>

The ability to think and communicate about gender may be delayed in those with ASD,<sup>44</sup> and individuals with ASD may have nuanced gender identity formation.<sup>45</sup> Much of the previous research linking ASD and GD has been based on child and parent report of symptoms consistent with GD or ASD and may be biased by differences in the process of gender identity formation.<sup>9,10,14,16</sup> The use of claims diagnoses of ASD and GD may be more robust than previous methods, thus strengthening the association between GD and ASD. Findings of delayed development of gender identity in children with ASD, the complexity of having autism and a gender-diverse identity, and ASD-related challenges in future thinking and planning suggest that it may be appropriate to be particularly thoughtful about medical treatments for GD in this population, especially as it relates to treatments that are not reversible.<sup>38,44</sup> Care approaches must be highly individualized, however, depending on a multitude of child, family, and ASD-related factors.

We found that 9.4% of children with ASD and GD had a coexisting intellectual disability. Previous reports of ASD and GD have not included indicators of intellectual disability, making any comparison impossible. In children with intellectual disability, findings of GD may be associated with nuances in forming gender identity. In children with ASD and intellectual disability, it may be advisable to have longer assessment periods for exploration (while providing affirming care) before considering nonreversible interventions.<sup>46</sup>

Underestimation of the number of military-dependent children with GD in this study is likely due to (1) previous limits to provision of services to TGD children in the MHS; (2) the relatively young median age of included children; and (3) ascertainment bias related to likely use of alternative ICD-9 codes to indicate some care for GD. Despite these obstacles, however, we identified 0.02% of children with a diagnosis suggestive of a TGD identity.

### Limitations

This study is limited by the use of ICD-9 codes for identification of ASD and GD in children. While the identification of ASD used a previously validated method, the use of ICD-9 codes does not provide a complete understanding of ASD severity and the full complement of symptoms. The criteria of an ICD-9 diagnostic code for GD in the MHS in the period before care was provided officially are not as stringent as the use of an ICD-diagnostic code together with a chart review, which was unfortunately not possible. This methodology likely resulted in an undercounting of GD in this pediatric population, especially as ICD-9 does not include a code for nonbinary and diverse identification. It is possible that individuals have changed their gender marker through a formal process, although recent research on TGD military populations indicates that such occurrences are exceedingly rare.<sup>47,48</sup>

### Strengths

The strengths of this study also are related to the use of ICD-9 codes. The many hurdles and issues surrounding the diagnosis of GD in military-dependent children during the study period indicate that the cases identified by this study are indeed true cases of GD and that the increased rate in

children with ASD is an indicator of an association between GD and ASD. Previous studies of ASD and GD have used self- or parent-report questionnaires to identify symptoms suggestive of ASD and included small samples of children.<sup>9,10,14,16</sup> The identification of known GD in a matched cohort of children with known ASD strengthens the link.

#### *Clinical approaches*

Initial clinical guidance dedicated to the management of co-occurring ASD and GD in adolescents was released in 2018.<sup>44</sup> Based on expert opinion, this guidance emphasized multidisciplinary assessment of an individual's cognitive, executive, and socioemotional functioning and communication skills, which in some situations may be best accomplished over an extended period of time and informed by multiple sources of information (e.g., clinician evaluation, parent or guardian report, and teacher observations).<sup>44</sup> The guidance also recommended that clinicians be mindful of evaluation and treatment options for adolescents with nonbinary spectrum identities and establish treatment plans that consider use of structured environments, frequent reassessment, and provision of psychoeducation.<sup>44</sup>

#### **Conclusion**

Consistent with previous studies, this research involving a large population of military-dependent children demonstrates an association between ASD and GD diagnoses. Clinicians providing care to both populations should be aware of the association. In addition, these findings support the concept of a possible genetic or biologic component to both experiences, suggesting a possible avenue for future research. Further research is needed to demonstrate approaches to providing optimal care to these children.

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#### **Disclaimer**

This work was presented at the Pediatric Academic Societies Meeting in Toronto, Canada, May 2018. The opinions and assertions expressed herein are those of the authors and are not to be construed as reflecting the views of the Uniformed Services University, the U.S. Air Force, the U.S. Army, the U.S. Navy, the U.S. military at large, or the U.S. Department of Defense. Title 17 U.S.C. 105 provides that "Copyright protection under this title is not available for any work of the United States Government." Title 17 U.S.C. 101 defines a United States Government work as a work prepared by a military service member or employee of the United States Government as part of that person's official duties.

#### **Author Disclosure Statement**

No competing financial interests exist.

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# EXHIBIT V

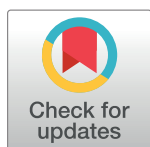
RESEARCH ARTICLE

# Rapid-onset gender dysphoria in adolescents and young adults: A study of parental reports

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## Abstract

### Purpose

In on-line forums, parents have been reporting that their children are experiencing what is described here as “rapid-onset gender dysphoria,” appearing for the first time during puberty or even after its completion. The onset of gender dysphoria seemed to occur in the context of belonging to a peer group where one, multiple, or even all of the friends have become gender dysphoric and transgender-identified during the same timeframe. Parents also report that their children exhibited an increase in social media/internet use prior to disclosure of a transgender identity. The purpose of this study was to document and explore these observations and describe the resulting presentation of gender dysphoria, which is inconsistent with existing research literature.

### Methods

Recruitment information with a link to a 90-question survey, consisting of multiple-choice, Likert-type and open-ended questions, was placed on three websites where parents had reported rapid onsets of gender dysphoria. Website moderators and potential participants were encouraged to share the recruitment information and link to the survey with any individuals or communities that they thought might include eligible participants to expand the reach of the project through snowball sampling techniques. Data were collected anonymously via SurveyMonkey. Quantitative findings are presented as frequencies, percentages, ranges, means and/or medians. Open-ended responses from two questions were targeted for qualitative analysis of themes.

### Results

There were 256 parent-completed surveys that met study criteria. The adolescent and young adult (AYA) children described were predominantly female sex at birth (82.8%) with a mean age of 16.4 years. Forty-one percent of the AYAs had expressed a non-heterosexual sexual orientation before identifying as transgender. Many (62.5%) of the AYAs had been diagnosed with at least one mental health disorder or neurodevelopmental disability prior to the onset of their gender dysphoria (range of the number of pre-existing diagnoses 0–7). In 36.8% of the friendship groups described, the majority of the members became transgender-identified.

## OPEN ACCESS

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(PPHS) at the Icahn School of Medicine at Mount Sinai ([IRB@mssm.edu](mailto:IRB@mssm.edu)).

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The most likely outcomes were that AYA mental well-being and parent-child relationships became worse since AYAs “came out”. AYAs expressed a range of behaviors that included: expressing distrust of non-transgender people (22.7%); stopping spending time with non-transgender friends (25.0%); trying to isolate themselves from their families (49.4%), and only trusting information about gender dysphoria from transgender sources (46.6%).

## Conclusion

Rapid-onset gender dysphoria (ROGD) describes a phenomenon where the development of gender dysphoria is observed to begin suddenly during or after puberty in an adolescent or young adult who would not have met criteria for gender dysphoria in childhood. ROGD appears to represent an entity that is distinct from the gender dysphoria observed in individuals who have previously been described as transgender. The worsening of mental well-being and parent-child relationships and behaviors that isolate AYAs from their parents, families, non-transgender friends and mainstream sources of information are particularly concerning. More research is needed to better understand this phenomenon, its implications and scope.

## Introduction

In recent years, a number of parents have been reporting in online discussion groups such as 4thwavenow in the US (<https://4thwavenow.com>) and Transgender Trend in the UK (<https://www.transgendertrend.com>) that their adolescent and young adult (AYA) children, who have had no histories of childhood gender identity issues, experienced a rapid onset of gender dysphoria. Parents have described clusters of gender dysphoria outbreaks occurring in pre-existing friend groups with multiple or even all members of a friend group becoming gender dysphoric and transgender-identified in a pattern that seems statistically unlikely based on previous research [1–5]. Parents describe a process of immersion in social media, such as “binge-watching” Youtube transition videos and excessive use of Tumblr, immediately preceding their child becoming gender dysphoric. These descriptions are atypical for the presentation of gender dysphoria described in the research literature [1–5] and raise the question of whether social influences may be contributing to or even driving these occurrences of gender dysphoria in some populations of adolescents and young adults. For the purpose of this study, rapid-onset gender dysphoria (ROGD) is defined as a type of adolescent-onset or late-onset gender dysphoria where the development of gender dysphoria is observed to begin suddenly during or after puberty in an adolescent or young adult who would not have met criteria for gender dysphoria in childhood. This study was designed to describe rapid-onset gender dysphoria (ROGD) and to generate hypotheses, including the role of social and peer contagion in the development of this condition.

## Background

**Gender dysphoria in adolescents.** Gender dysphoria (GD) is defined as an individual’s persistent discomfort with their biological sex or assigned gender [6]. Two types of gender dysphoria studied include early-onset GD, where the symptoms of gender dysphoria begin in early childhood, and late-onset GD where the symptoms begin after puberty [6]. Late-onset GD that occurs during adolescence is now called adolescent-onset GD. The majority of adolescents who present for care for gender dysphoria are individuals who experienced early-onset

gender dysphoria that persisted or worsened with puberty although an atypical presentation has been described where adolescents who did not experience childhood symptoms present with new symptoms in adolescence [2, 7]. Adolescent-onset of gender dysphoria is a relatively new phenomenon for natal females. In fact, prior to 2012, there were no little to no research studies about adolescent females with gender dysphoria first beginning in adolescence [5]. Thus, far more is known about adolescents with early-onset gender dysphoria than adolescents with adolescent-onset gender dysphoria [1, 8]. Although not all research studies on gender dysphoric adolescents exclude those with adolescent-onset gender dysphoria [5], it is important to note that most of the studies on adolescents, particularly those about gender dysphoria persistence and desistance rates and outcomes for the use of puberty suppression, cross-sex hormones, and surgery only included subjects whose gender dysphoria began in childhood and subjects with adolescent-onset gender dysphoria would not have met inclusion criteria for these studies [9–17]. Therefore, most of the research on adolescents with gender dysphoria to date is not generalizable to adolescents experiencing adolescent-onset gender dysphoria [9–17] and the outcomes for individuals with adolescent-onset gender dysphoria, including persistence and desistance rates and outcomes for treatments, are currently unknown.

As recently as 2012, there were only two clinics (one in Canada and one in the Netherlands) that had gathered enough data to provide empirical information about the main issues for gender dysphoric adolescents [18]. Both institutions concluded that the management of adolescent-onset gender dysphoria is more complicated than the management of early-onset gender dysphoria and that individuals with adolescent-onset are more likely to have significant psychopathology [18]. The presentation of gender dysphoria can occur in the context of severe psychiatric disorders, developmental difficulties, or as part of large-scale identity issues and, for these patients, medical transition might not be advisable [19]. The APA Task Force on the Treatment of Gender Identity Disorder notes that adolescents with gender dysphoria “should be screened carefully to detect the emergence of the desire for sex reassignment in the context of trauma as well as for any disorder (such as schizophrenia, mania, psychotic depression) that may produce gender confusion. When present, such psychopathology must be addressed and taken into account prior to assisting the adolescent’s decision as to whether or not to pursue sex reassignment or actually assisting the adolescent with the gender transition.” [18].

**Social and peer contagion.** The description of cluster outbreaks of gender dysphoria occurring in pre-existing groups of friends and increased exposure to social media/internet preceding a child’s announcement of a transgender identity raises the possibility of social and peer contagion. Social contagion [20] is the spread of affect or behaviors through a population. Peer contagion, in particular, is the process where an individual and peer mutually influence each other in a way that promotes emotions and behaviors that can potentially undermine their own development or harm others [21]. Peer contagion has been associated with depressive symptoms, disordered eating, aggression, bullying, and drug use [21, 22]. Internalizing symptoms such as depression can be spread via the mechanisms of co-rumination, which entails the repetitive discussion of problems, excessive reassurance seeking (ERS), and negative feedback [21, 23–25]. Deviancy training, which was first described for rule breaking, delinquency, and aggression, is the process whereby attitudes and behaviors associated with problem behaviors are promoted with positive reinforcement by peers [26, 27].

Peer contagion has been shown to be a factor in several aspects of eating disorders. There are examples in the eating disorder and anorexia nervosa literature of how both internalizing symptoms and behaviors have been shared and spread via peer influences [28–32] which may have relevance to considerations of rapid-onset gender dysphoria. Friendship cliques can set the norms for preoccupation with one’s body, one’s body image, and techniques for weight loss, and can predict an individual’s body image concerns and eating behaviors [28–30]. Peer influence is

intensified in inpatient and outpatient treatment settings for patients with anorexia and counter-therapeutic subcultures that actively promote the beliefs and behaviors of anorexia nervosa have been observed [30–32]. In these settings, there is a group dynamic where the “best” anorexics (those who are thinnest, most resistant to gaining weight, and who have experienced the most medical complications from their disease) are admired, validated, and seen as authentic while the patients who want to recover from anorexia and cooperate with medical treatment are maligned, ridiculed, and marginalized [30–32]. Additionally, behaviors associated with deceiving parents and doctors about eating and weight loss, referred to as the “anorexic tricks,” are shared by patients in a manner akin to deviancy training [30–32]. Online environments provide ample opportunity for excessive reassurance seeking, co-rumination, positive and negative feedback, and deviancy training from peers who subscribe to unhealthy, self-harming behaviors. The pro-eating disorder sites provide motivation for extreme weight loss (sometimes calling the motivational content “thinspiration”). Such sites promote validation of eating disorder as an identity, and offer “tips and tricks” for weight loss and for deceiving parents and doctors so that individuals may continue their weight-loss activities [33–35]. If similar mechanisms are at work in the context of gender dysphoria, this greatly complicates the evaluation and treatment of impacted AYAs.

In the past decade, there has been an increase in visibility, social media, and user-generated online content about transgender issues and transition [36], which may act as a double-edged sword. On the one hand, an increase in visibility has given a voice to individuals who would have been under-diagnosed and undertreated in the past [36]. On the other hand, it is plausible that online content may encourage vulnerable individuals to believe that nonspecific symptoms and vague feelings should be interpreted as gender dysphoria stemming from a transgender condition. Recently, leading international academic and clinical commentators have raised the question about the role of social media and online content in the development of gender dysphoria [37]. Concern has been raised that adolescents may come to believe that transition is the only solution to their individual situations, that exposure to internet content that is uncritically positive about transition may intensify these beliefs, and that those teens may pressure doctors for immediate medical treatment [18]. There are many examples on popular sites such as Reddit ([www.reddit.com](http://www.reddit.com) with subreddit ask/r/transgender) and Tumblr ([www.tumblr.com](http://www.tumblr.com)) where online advice promotes the idea that nonspecific symptoms should be considered to be gender dysphoria, conveys an urgency to transition, and instructs individuals how to deceive parents, doctors, and therapists to obtain hormones quickly [38]. Fig 1 includes examples of online advice from reddit and tumblr.

**Purpose.** Rapid presentation of adolescent-onset gender dysphoria and gender dysphoria cases occurring in clusters of pre-existing friend groups is not consistent with current knowledge about gender dysphoria and has not been described in the scientific literature to date. The purpose of this research is (1) to describe an atypical presentation of gender dysphoria occurring with sudden and rapid onset in adolescents and young adults; and (2) to generate hypotheses about the condition, including the role of social and peer contagion in its development.

## Materials and methods

The Icahn School of Medicine at Mount Sinai, Program for the Protection of Human Subjects provided approval of research for this project (HS#: 16–00744).

## Participants

During the recruitment period, 256 parents completed online surveys that met the study criteria. The sample of parents included more women (91.7%) than men (8.3%) and participants

Instructions on lying	<ul style="list-style-type: none"> <li>• “TL;DR find out what they want to hear if they’re gonna give you T and then tell them just that. It’s about getting treatment, not about being true to those around you. It’s not their business and a lot of time doctors will screw stuff up for you.”<sup>a</sup></li> <li>• “...Get a story ready in your head, and as suggested keep the lie to a minimum. And only for stuff that can’t be verified. Like how you were feeling, but was too afraid to tell anyone including your family.”<sup>b</sup></li> <li>• “I’d also look up the DSM for the diagnostic criteria for transgender and make sure your story fits it, assuming your psych follows it.”<sup>c</sup></li> </ul>
Urgency to transition	<ul style="list-style-type: none"> <li>• “...If you don’t do it when you are young. You’ll be miserable and unhappy with your body for the rest of your life.”<sup>d</sup></li> </ul>
Vague and nonspecific symptoms called signs of GD	<ul style="list-style-type: none"> <li>• “Signs of indirect gender dysphoria: 1. Continual difficulty with simply getting through the day. 2. A sense of misalignment, disconnect, or estrangement from your own emotions. 3. A feeling of just going through the motions in everyday life, as if you’re always reading from a script. 4. A seeming pointlessness to your life, and no sense of any real meaning or ultimate purpose. 5. Knowing you’re somehow different from everyone else, and wishing you could be normal like them...”<sup>e</sup></li> </ul>
	<p>a. <a href="https://www.reddit.com/r/asktransgender/comments/2nt8gi/having_a_psych_eval_soon/#bottom-comments">https://www.reddit.com/r/asktransgender/comments/2nt8gi/having_a_psych_eval_soon/#bottom-comments</a></p> <p>b. <a href="https://www.reddit.com/r/asktransgender/comments/4agf76/is_it_best_to_be_completely_honest_or_lie_a/">https://www.reddit.com/r/asktransgender/comments/4agf76/is_it_best_to_be_completely_honest_or_lie_a/</a></p> <p>c. <a href="https://www.reddit.com/r/asktransgender/comments/4ihwar/what_things_should_i_never_tell_my_psychologist/">https://www.reddit.com/r/asktransgender/comments/4ihwar/what_things_should_i_never_tell_my_psychologist/</a></p> <p>d. <a href="https://www.reddit.com/r/asktransgender/comments/3gpb94/at_the_final_stage_of_questioning_need_some/#bottom-comments">https://www.reddit.com/r/asktransgender/comments/3gpb94/at_the_final_stage_of_questioning_need_some/#bottom-comments</a></p> <p>e. <a href="https://transgenderteensurvivalguide.tumblr.com/post/62036014416/that-was-dysphoria-8-signs-and-symptoms-of">https://transgenderteensurvivalguide.tumblr.com/post/62036014416/that-was-dysphoria-8-signs-and-symptoms-of</a></p>

**Fig 1. Example quotes of online advice from reddit and tumblr.**

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were predominantly between the ages of 45 and 60 (66.1%) (Table 1). Most respondents were White (91.4%), non-Hispanic (99.2%), and lived in the United States (71.7%). Most respondents had a Bachelor’s degree (37.8%) or graduate degree (33.1%). The adolescents and young adults (AYAs) described by their parents were predominantly female sex at birth (82.8%) with an average current age of 16.4 years (range, 11–27 years). See Table 2.

## Procedure

A 90-question survey instrument with multiple choice, Likert-type, and open-ended questions was created by the researcher. The survey was designed for parents (respondents) to complete about their adolescent and young adult children. The survey was uploaded onto Survey Monkey (SurveyMonkey, Palo Alto, CA, USA) via an account that was HIPPA-enabled. IRB approval for the study from the Icahn School of Medicine at Mount Sinai in New York, NY was received. Recruitment information with a link to the survey was placed on three websites where parents and professionals had been observed to describe rapid onset of gender dysphoria (4thwavenow, transgender trend, and youthtranscriticalprofessionals). Website moderators and potential participants were encouraged to share the recruitment information and link to the survey with any individuals or communities that they thought might include eligible participants to expand the reach of the project through snowball sampling techniques. The survey was active from June 29, 2016 to October 12, 2016 (3.5 months) and took 30–60 minutes to complete. Participants completed the survey at a time and place of their own choosing. Data were collected anonymously and stored securely with Survey Monkey.

Participation in this study was voluntary and its purpose was clearly described in the recruitment information. Electronic consent was obtained. Participants had the option to withdraw consent at any time prior to submitting responses. Inclusion criteria were (1) completion of a survey with parental response that the child had a sudden or rapid onset of gender dysphoria; and (2) parental indication that the child’s gender dysphoria began during or after puberty. There was logic embedded in the survey that disqualified surveys that answered “no” (or skipped

**Table 1. Demographic and other baseline characteristics of parent respondents.**

Characteristics of Parent-respondents		n	%
Sex		254	
	Female	233	91.7
	Male	21	8.3
Age (y)		254	
	18–29	3	1.2
	30–44	74	29.1
	45–60	168	66.1
	>60	9	3.5
Race/Ethnicity*		255	
	White	233	91.4
	Other**	22	8.6
Country of Residence		254	
	US	182	71.7
	UK	39	15.4
	Canada	17	6.7
	Other	16	6.3
Education		254	
	Bachelor's degree	96	37.8
	Graduate degree	84	33.1
	Some college or Associates degree	63	24.8
	HS grad or GED	10	3.9
	<High School	1	0.4
Parent attitude on allowing gay and lesbian couples to marry legally		256	
	Favor	220	85.9
	Oppose	19	7.4
	Don't know	17	6.6
Parent belief that transgender people deserve the same rights and protections as others		255	
	Yes	225	88.2
	No	8	3.1
	Don't know	20	7.8
	Other	2	0.8

\* may select more than one answer.

\*\* declining order includes: Other, Multiracial, Asian, Hispanic.

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the question) about whether the child had a sudden or rapid onset of gender dysphoria and 23 surveys were disqualified prior to completion (20 “no” answers and 3 skipped answers). After cleaning the data for the 274 completed surveys, 8 surveys were excluded for not having a sudden or rapid onset of gender dysphoria and 10 surveys were excluded for not having gender dysphoria that began during or after puberty, which left 256 completed surveys for inclusion. As the survey was voluntary there was no refusal or dropout rate.

## Measures

**Basic demographic and baseline characteristics.** Basic demographic and baseline characteristic questions, including parental attitudes about LGBT rights, were included. Parents

**Table 2. Demographic and other baseline characteristics of AYAs.**

Characteristics of AYAs		n	%
AYA sex at birth (natal sex)		256	
	Female	212	82.8
	Male	44	17.2
AYA average current age (range of ages)	16.4 (11–27)	256	
Academic diagnoses		253	
	Gifted	120	47.4
	Learning Disability	11	4.3
	Both	27	10.7
	Neither	95	37.5
Natal female expressed sexual orientation before announcement*		212	
	Asexual	18	8.5
	Bisexual or Pansexual	78	36.8
	Gay or Lesbian	58	27.4
	Straight (Heterosexual)	75	35.4
	Did not express	57	26.9
Natal male expressed sexual orientation before announcement*		44	
	Asexual	4	9.1
	Bisexual or Pansexual	5	11.4
	Gay	5	11.4
	Straight (Heterosexual)	25	56.8
	Did not express	11	25.0
Gender dysphoria began		256	
	During puberty	125	48.8
	After puberty	131	51.2
Along with a rapid onset of GD, the AYA also:		256	
	Belonged to a friend group where one or multiple friends became transgender-identified during a similar timeframe	55	21.5
	Had an increase in social media/internet use	51	19.9
	Both of the above	116	45.3
	Neither	13	5.1
	Don't know	21	8.2

\* may select more than one answer.

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were asked about their children's mental health disorders and neurodevelopmental disabilities that were diagnosed before their child's onset of gender dysphoria as well as during and after. The question, "Has your child been formally identified as academically gifted, learning disabled, both, neither?" was used as a proxy to estimate rates of academic giftedness and learning disabilities. Questions about trauma and non-suicidal self-injury were also included as were questions about social difficulties described in a previous research study about gender dysphoric adolescents [19].

**DSM-5 diagnostic criteria for gender dysphoria in children.** The DSM 5 criteria for gender dysphoria in children (Fig 2) consist of eight indicators of gender dysphoria [39]. To meet criteria for diagnosis, a child must manifest at least six out of eight indicators including



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**Fig 2. Diagnostic and statistical manual of mental disorders (fifth ed).** Gender dysphoria in children.

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the one designated A1, “A strong desire to be the other gender or an insistence that one is the other gender (or some alternative gender different from one’s assigned gender).” Three of the indicators (A1, A7, and A8) refer to desires or dislikes of the child and five of the indicators (A2-A6) are readily observable behaviors and preferences. The eight indicators were simplified for language and parents were asked to note which, if any, their child had exhibited prior to puberty. The requirement of six-month duration of symptoms was not included.

**DSM-5 diagnostic criteria for gender dysphoria in adolescents and adults.** The DSM-5 criteria for gender dysphoria in adolescents and adults (Fig 3) consist of six indicators of gender dysphoria [39]. To meet criteria for diagnosis, an adolescent or adult must manifest at least two of the six indicators. The six indicators were simplified for language, the first indicator was adjusted for a parent to answer about their child, and parents were asked to note which, if

Figure removed due to copyright restrictions.

**Fig 3. Diagnostic and statistical manual of mental disorders (fifth ed).** Gender dysphoria in adolescents and adults.

<https://doi.org/10.1371/journal.pone.0202330.g003>

any, their child was expressing currently. The requirement of six-month duration of symptoms was not included.

**Exposure to friend groups and social media/internet content.** Survey questions were developed to describe AYA friend groups, including number of friends that became transgender-identified in a similar time period as the AYA, peer group dynamics and behaviors, and exposure to specific types of social media/internet content and messages that have been observed on sites popular with teens, such as Reddit and Tumblr.

**Behaviors, outcomes, clinical interactions.** Survey questions were developed to specifically quantify adolescent behaviors that had been described by parents in online discussions and observed elsewhere. Participants were asked to describe outcomes such as their child's mental well-being and parent-child relationship since becoming transgender-identified. Parents were also asked about experiences with clinicians and their children's disposition regarding steps taken for transition and duration of transgender-identification both for children who were still transgender-identified and for children who were no longer transgender-identified.

**Coping with strong or negative emotions.** Two questions about the AYAs' ability to cope with negative and strong emotions were included. One question was "How does your child handle strong emotions? (please select the best answer)." Offered answers were "My child is overwhelmed by strong emotions and goes to great lengths to avoid feeling them," "My child is overwhelmed by strong emotions and tries to avoid feeling them," "My child neither avoids nor seeks out strong emotions," "My child tries to seek out situations in order to feel strong emotions," "My child goes to great lengths to seek out situations in order to feel strong emotions," "None of the above," "I don't know." The other question was "How would you rate your child's ability to deal with their negative emotions and channel them into something productive?" An example was given regarding dealing with a low test grade by studying harder for the next test (excellent) or by ignoring it, throwing a tantrum, blaming the teacher or distracting themselves with computer games, alcohol, drugs, etc. (extremely poor). Offered answers were: excellent, good, fair, poor, extremely poor, and I don't know.

## Data analysis

Statistical analyses of quantitative data were performed using Excel and custom shell scripts (Unix). Quantitative findings are presented as frequencies, percentages, ranges, means and/or medians. ANOVAs, chi-squared, and t-tests comparisons were used where appropriate using publicly available calculators and  $p < 0.05$  was considered significant. Qualitative data were obtained from open text answers to questions that allowed participants to provide additional information or comments. The types of comments and descriptions were categorized, tallied, and reported numerically. A grounded theory approach was selected as the analytic strategy of choice for handling the qualitative responses because it allowed the researcher to assemble the data in accordance with the salient points the respondents were making without forcing the data into a preconceived theoretical framework of the researcher's own choosing [40]. Illustrative respondent quotes and summaries from the qualitative data are used to illustrate the quantitative results and to provide relevant examples. Two questions were targeted for full qualitative analysis of themes (one question on friend group behaviors and one on clinician interactions). For these questions, a second reviewer with expertise in qualitative methods was engaged (MM). Both the author (LL) and reviewer (MM) independently analyzed the content of the open text answers and identified major themes. Discrepancies were resolved with collaborative discussion and themes were explored and refined until agreement was reached for the final lists of themes. Representative quotes for each theme were selected by LL, reviewed by MM, and agreement was reached.

## Results

### Baseline characteristics

Baseline characteristics (Table 1) included that the vast majority of parents favored gay and lesbian couples' right to legally marry (85.9%) and believed that transgender individuals deserve the same rights and protections as other individuals in their country (88.2%). Along with the sudden or rapid onset of gender dysphoria, the AYAs belonged to a friend group where one or multiple friends became gender dysphoric and came out as transgender during a similar time as they did (21.5%), exhibited an increase in their social media/internet use (19.9%), both (45.3%), neither (5.1%), and don't know (8.2%). For comparisons, the first three categories will be combined and called "social influence" (86.7%) and the last two combined as "no social influence" (13.3%). Nearly half (47.4%) of the AYAs had been formally diagnosed as academically gifted, 4.3% had a learning disability, 10.7% were both gifted and learning disabled, and 37.5% were neither. Sexual orientation as expressed by the AYA prior to transgender-identification is listed separately for natal females and for natal males (Table 2). Overall, 41% of the AYAs expressed a non-heterosexual sexual orientation prior to disclosing a transgender-identification.

It is important to note that none of the AYAs described in this study would have met diagnostic criteria for gender dysphoria in childhood (Table 3). In fact, the vast majority (80.4%) had zero indicators from the DSM-5 diagnostic criteria for childhood gender dysphoria with 12.2% possessing one indicator, 3.5% with two indicators, and 2.4% with three indicators. Breaking down these results, for readily observable indicators (A2-6), 83.5% of AYAs had zero indicators, 10.2% had one indicator, 3.9% had two indicators, and 1.2% had three indicators. For the desire/dislike indicators (A1, A7, A8), which a parent would have knowledge of if the child expressed them verbally, but might be unaware if a child did not, 95.7% had zero indicators and 3.5% had one indicator. Parents responded to the question about which, if any, of the indicators of the DSM criteria for adolescent and adult gender dysphoria their child was experiencing currently. The average number of positive current indicators was 3.5 (range 0–6) and 83.2% of the AYA sample was currently experiencing two or more indicators. Thus, while the focal AYAs did not experience childhood gender dysphoria, the majority of those who were the focus of this study were indeed gender dysphoric at the time of the survey completion.

The AYAs who were the focus of this study had many comorbidities and vulnerabilities pre-dating the onset of their gender dysphoria, including psychiatric disorders, neurodevelopmental disabilities, trauma, non-suicidal self-injury (NSSI), and difficulties coping with strong or negative emotions (Table 4). The majority (62.5%) of AYAs had one or more diagnoses of a psychiatric disorder or neurodevelopmental disability preceding the onset of gender dysphoria (range of the number of pre-existing diagnoses 0–7). Many (48.4%) had experienced a traumatic or stressful event prior to the onset of their gender dysphoria. Open text descriptions of trauma were categorized as "family" (including parental divorce, death of a parent, mental disorder in a sibling or parent), "sex or gender related" (such as rape, attempted rape, sexual harassment, abusive dating relationship, break-up), "social" (such as bullying, social isolation), "moving" (family relocation or change of schools); "psychiatric" (such as psychiatric hospitalization), and medical (such as serious illness or medical hospitalization). Almost half (45.0%) of AYAs were engaging in non-suicidal self-injury (NSSI) behavior before the onset of GD. Coping styles for these AYAs included having a poor or extremely poor ability to handle negative emotions productively (58.0%) and being overwhelmed by strong emotions and trying to avoid (or go to great lengths to avoid) experiencing them (61.4%) (Table 4). The majority of respondents (69.4%) answered that their child had social anxiety during adolescence; 44.3%

**Table 3. DSM 5 Indicators for gender dysphoria.**

Characteristics		n	%
AYAs who would have met diagnostic criteria for gender dysphoria in childhood		0	0
Number of DSM 5 indicators for gender dysphoria in children exhibited prior to puberty		255	
	Zero indicators	205	80.4
	One indicator	31	12.2
	Two indicators	9	3.5
	Three indicators	6	2.4
	Four indicators	3	1.2
Desire/Dislike Indicators (A1, A7, or A8)		255	
	Zero indicators	244	95.7
	One indicators	9	3.5
	Two indicators	0	0
	Three indicators	1	0.4
Readily observable indicators (A2-A6)		254	
	Zero indicators	212	83.5
	One indicator	26	10.2
	Two indicators	10	3.9
	Three indicators	3	1.2
	Four indicators	3	1.2
Average number of DSM 5 indicators for adolescent and adult gender dysphoria that the AYA is experiencing currently (range)			
	3.5 (range 0–6)	247	
AYAs currently experiencing two or more indicators of gender dysphoria for adolescents and adults		250	
	Yes	208	83.2
	No	40	16.0
	Don't know	2	0.8

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that their child had difficulty interacting with their peers, and 43.1% that their child had a history of being isolated (not associating with their peers outside of school activities).

### Announcing a transgender-identification

At the time the AYA announced they were transgender-identified (“came out”), most were living at home with one or both parents (88.3%) and a small number were living at college (6.2%). The average age of announcement of a transgender-identification was 15.2 years of age (range 10–21) (Table 5). Most of the parents (80.9%) answered affirmatively that their child’s announcement of being transgender came “out of the blue without significant prior evidence of gender dysphoria.” Respondents were asked to pinpoint a time when their child seemed not

**Table 4. AYA baseline comorbidities and vulnerabilities predating the onset of gender dysphoria.**

Characteristics		n	%
Mental disorder or neurodevelopmental disability diagnosed prior to the onset of gender dysphoria*		251	
	Anxiety	117	46.6
	Depression	99	39.4
	Attention Deficit Hyperactivity Disorder (ADHD)	29	11.6
	Obsessive Compulsive Disorder (OCD)	21	8.4
	Autism Spectrum Disorder (ASD)	20	8.0
	Eating Disorder	12	4.8
	Bipolar Disorder	8	3.2
	Psychosis	6	2.4
	None of above	94	37.5
	(Other) Borderline	3	1.2
	(Other) Oppositional Defiant Disorder	2	0.8
Traumatic or stressful experience prior to the onset of gender dysphoria		252	
	Yes	122	48.4
	No	91	36.1
	Don't know	38	15.1
	Other	1	0.4
Types of trauma*		113	
	Family	50	44.2
	Sex/Gender related	34	30.1
	Social	23	20.4
	Moving	20	17.7
	Psychiatric	9	8.0
	Medical	7	6.2
Non-suicidal self-injury (NSSI) before the onset of gender dysphoria		180	
		81	45.0
Ability to handle negative emotions productively		255	
	Excellent/Good	34	13.3
	Fair	70	27.5
	Poor/Extremely Poor	148	58.0
	Don't know	3	1.2
Coping style for dealing with strong emotions		254	
	Overwhelmed by strong emotions and tries to /goes to great lengths to avoid feeling them	156	61.4
	Neither avoids nor seeks out strong emotions	29	11.4
	Tries to/goes to great lengths to seeks out strong emotions	33	13.0
	Don't know	25	9.8
	None of the above	11	4.3
Social vulnerabilities		255	
	During adolescence child had social anxiety	177	69.4
	Child had difficulty interacting with their peers	113	44.3
	History of being isolated (not interacting with peers outside of school activities)	110	43.1
	Child felt excluded by peers throughout most of grade school	93	36.5
	Child had persistent experiences of being bullied before the onset of gender dysphoria	74	29.0

\*may select more than one answer.

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**Table 5. Announcing a transgender-identification.**

Characteristics		n	%
Age of AYA when the AYA announced a transgender-identification (range)	15.2 average (10–21)	255	
Living arrangement at announcement		256	
	Living at home with one or both parents	226	88.3
	Living at college or university	16	6.2
	Other	14	5.5
AYA's announcement came from "out of the blue, without significant prior evidence of gender dysphoria"		256	
	Yes	207	80.9
	No	33	12.9
	Other	16	6.2
If a time was pinpointed when the child seemed not at all gender dysphoric, how long between that time and the child's announcement of a transgender-identity?		250	
	Did not seem at all gender dysphoric when they announced and transgender-identity	81	32.4
	Less than a week to 3 months	65	26.0
	4–6 months	31	12.4
	7–9 months	10	4.0
	10–12 months	29	11.6
	More than 12 months	20	8.0
	Don't know	14	5.6
Parent suspects that when the child first announced a transgender-identity, that the child used language that they found online		253	
	Yes	175	69.2
	No	53	20.9
	N/A	25	9.9
Parent thinks their child is correct in their child's belief of being transgender		255	
	Yes	6	2.4
	No	195	76.5
	Don't know	38	14.9
	Other	16	6.3
How soon after the announcement did the AYA ask for transition?		255	
	At the same time	86	33.7
	Between less than one week to one month	33	12.9
	2–5 months after announcement	26	10.2
	6 or more months after announcement	19	7.5
	Other	16	6.3
	N/A	75	29.4
Intention and request for transition*		189	
	AYA told the parent that they want cross-sex hormones	127	67.2
	AYA told the parent that they want to go to a gender therapist/gender clinic	111	58.7
	AYA told the parent that they want surgery	101	53.4

(Continued)



Table 5. (Continued)

Characteristics		n	%
	AYA brought up the issue of suicides in transgender teens as a reason that their parent should agree to treatment	59	31.2
AYA has very high expectation that transitioning will solve their problems in social, academic, occupational, or mental health areas		256	
	Yes	143	55.9
	No	13	5.1
	Don't know	100	39.1
AYA was willing to work on basic mental health before seeking gender treatments		253	
	Yes	111	43.9
	No	71	28.1
	Don't know	30	11.9
	N/A	41	16.2

\*may select more than one answer.

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at all gender dysphoric and to estimate the length of time between that point and their child's announcement of a transgender-identity. Almost a third of respondents (32.4%) noted that their child did not seem gender dysphoric when they made their announcement and 26.0% said the length of time from not seeming gender dysphoric to announcing a transgender identity was between less than a week to three months. The most striking examples of "not seeming at all gender dysphoric" prior to making the announcement included a daughter who loved summers and seemed to love how she looked in a bikini, another daughter who happily wore bikinis and makeup, and another daughter who previously said, "I love my body!"

The majority of respondents (69.2%) believed that their child was using language that they found online when they "came out." A total of 130 participants provided optional open text responses to this question, and responses fell into the following categories: why they thought the child was using language they found online (51); description of what the child said but didn't provide a reason that they suspected the child was using language they found online (61); something else about the conversation (8) or the child (7) and don't know (3). Of the 51 responses describing reasons why respondents thought their child was reproducing language they found online, the top two reasons were that it didn't sound like their child's voice (19 respondents) and that the parent later looked online and recognized the same words and phrases that their child used when they announced a transgender identity (14 respondents). The observation that it didn't sound like their child's voice was also expressed as "sounding scripted," like their child was "reading from a script," "wooden," "like a form letter," and that it didn't sound like their child's words. Parents described finding the words their child said to them "verbatim," "word for word," "practically copy and paste," and "identical" in online and other sources. The following quotes capture these top two observations. One parent said, "It seemed different from the way she usually talked—I remember thinking it was like hearing someone who had memorized a lot of definitions for a vocabulary test." Another respondent said, "The email [my child sent to me] read like all of the narratives posted online almost word for word."

The following case summaries were selected to illustrate peer, trauma, and psychiatric contexts that might indicate more complicated clinical pictures.

- A 12-year-old natal female was bullied specifically for going through early puberty and the responding parent wrote “as a result she said she felt fat and hated her breasts.” She learned online that hating your breasts is a sign of being transgender. She edited her diary (by crossing out existing text and writing in new text) to make it appear that she has always felt that she is transgender.
- A 14-year-old natal female and three of her natal female friends were taking group lessons together with a very popular coach. The coach came out as transgender, and, within one year, all four students announced they were also transgender.
- A natal female was traumatized by a rape when she was 16 years of age. Before the rape, she was described as a happy girl; after the rape, she became withdrawn and fearful. Several months after the rape, she announced that she was transgender and told her parents that she needed to transition.
- A 21-year-old natal male who had been academically successful at a prestigious university seemed depressed for about six months. Since concluding that he was transgender, he went on to have a marked decline in his social functioning and has become increasingly angry and hostile to his family. He refuses to move out or look for a job. His entire family, including several members who are very supportive of the transgender community, believe that he is “suffering from a mental disorder which has nothing to do with gender.”
- A 14-year-old natal female and three of her natal female friends are part of a larger friend group that spends much of their time talking about gender and sexuality. The three natal female friends all announced they were trans boys and chose similar masculine names. After spending time with these three friends, the 14-year-old natal female announced that she was also a trans boy.

The majority (76.5%) of the surveyed parents felt that their child was incorrect in their belief of being transgender (Table 5). More than a third (33.7%) of the AYAs asked for medical and/or surgical transition at the same time that they announced they were transgender-identified. Two thirds (67.2%) of the AYAs told their parent that they wanted to take cross-sex hormones; 58.7% that they wanted to see a gender therapist/gender clinic; and 53.4% that they wanted surgery for transition. Almost a third (31.2%) of AYAs brought up the issue of suicides in transgender teens as a reason that their parent should agree to treatment. More than half of the AYAs (55.9%) had very high expectations that transitioning would solve their problems in social, academic, occupational or mental health areas. While 43.9% of AYAs were willing to work on basic mental health before seeking gender treatments, a sizable minority (28.1%) were not willing to work on their basic mental health before seeking gender treatment. At least two parents relayed that their child discontinued psychiatric care and medications for pre-existing mental health conditions once they identified as transgender. One parent, in response to the question about if their child had very high expectations that transitioning would solve their problems elaborated, “Very much so. [She] discontinued anti-depressant quickly, stopped seeing psychiatrist, began seeing gender therapist, stopped healthy eating. [She] stated ‘none of it’ (minding what she ate and taking her Rx) ‘mattered anymore.’ This was her cure, in her opinion.”

### Friend-group exposure

The adolescent and young adult children were, on average, 14.4 years old when their first friend became transgender-identified (Table 6). Within friendship groups, the average number of individuals who became transgender-identified was 3.5 per group. In 36.8% of the friend

groups described, the majority of individuals in the group became transgender-identified. The order that the focal AYA “came out” compared to the rest of their friendship group was calculated from the 119 participants who provided the number of friends coming out both before and after their child and 74.8% of the AYAs were first, second or third of their group. Parents described intense group dynamics where friend groups praised and supported people who were transgender-identified and ridiculed and maligned non-transgender people. Where popularity status and activities were known, 60.7% of the AYAs experienced an increased popularity within their friend group when they announced a transgender-identification and 60.0% of the friend groups were known to mock people who were not transgender or LGBTIA (lesbian, gay, bisexual, transgender, intersex, or asexual).

For the question about popularity changes when the child came out as having a transgender-identification, 79 participants provided optional open text responses which were categorized as: descriptions of the responses the child received (39); descriptions of the friends (14); description that the child did not “come out” to friends (8); not sure (9); speculation on how the child felt

**Table 6. Friend group exposure.**

Characteristics		n	%
The AYA has been part of a friend group where one or more friends has come out as transgender around a similar timeframe as they did		254	
	Yes	176	69.3
	No	47	18.5
	Don't know	31	12.2
Age of AYA when their first friend became transgender-identified (range)	14.4 average (11–21)	174	
Number of friends from the friendship group who became gender dysphoric average (range)	3.5 average (2–10)	138	
Where numbers known, friend groups where the MAJORITY of the friends in the friendship group became transgender-identified		125	
	Yes	46	36.8
	No	79	63.2
Order of the AYAs “coming out” compared to the others in the friendship group		119	
	First in the friendship group	4	3.4
	Second in the friendship group	52	43.7
	Third in the friendship group	33	27.7
	Fourth in the friendship group	18	15.1
	Fifth in the friendship group	5	4.2
	Sixth or Seventh in the friendship group	6	5.0
Where popularity status known, change in popularity within friend group when AYA announced their transgender-identification		178	
	Increased popularity	108	60.7
	Decreased popularity	11	6.2
	Unchanged popularity	59	33.1
Where friend group activities known, friend group known to mock people who are not transgender/LGBT		145	
	Yes	87	60.0
	No	58	40.0

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from the response (4), other (5). Of the 39 descriptions of responses, 19 of these responses referred to positive benefits the child received after coming out including positive attention, compliments, increased status, increased popularity, increased numbers of online followers, and improved protection from ongoing bullying. The following are quotes from parents about the perceived benefits of transgender-identification afforded to their child. One respondent said, "Great increase in popularity among the student body at large. Being trans is a gold star in the eyes of other teens." Another respondent explained, "not so much 'popularity' increasing as 'status' . . . also she became untouchable in terms of bullying in school as teachers who ignored homophobic bullying . . . are now all at pains to be hot on the heels of any trans bullying." Seven respondents described a mixed response where the child's popularity increased with some friends and decreased with others. Seven respondents described a neutral response such as "All of the friends seemed extremely accepting." Two described a temporary increase in their child's popularity: "There was an immediate rush of support when he came out. Those same friends have dwindled to nothing as he rarely speaks to any of them now." Another described the loss of friends. And two parents described that "coming out" prevented the loss of friends explained by one respondent as "to not be trans one would not have been included in his group."

Several AYAs expressed significant concern about the potential repercussions from their friend group when they concluded that they were not transgender after all. There were two unrelated cases with similar trajectories where the AYAs spent some significant time in a different setting, away from their usual friend group, without access to the internet. Parents described that these AYAs made new friendships, became romantically involved with another person, and during their time away concluded that they were not transgender. In both cases, the adolescents, rather than face their school friends, asked to move and transfer to different high schools. One parent said that their child, ". . . couldn't face the stigma of going back to school and being branded as a fake or phony. . . . Or worse, a traitor or some kind of betrayer. . . [and] asked us if we could move." In the other case, the parent relayed that their child thought none of the original friends would understand and expressed a strong desire to ". . . get out of the culture that 'if you are cis, then you are bad or oppressive or clueless.'" Both families were able to relocate and both respondents reported that their teens have thrived in their new environments and new schools. One respondent described that their child expressed relief that medical transition was never started and felt there would have been pressure to move forward had the family not moved away from the peer group.

**Qualitative analysis.** The open-ended responses from the question about whether the AYAs and friends mocked, teased, or made fun of individuals who weren't transgender or LGBTIA was selected for additional qualitative analysis. Seven major themes were identified from the comments provided by participants and are described, with representative supporting quotes.

**Theme: groups targeted.** The groups targeted for mocking by the friend groups are often heterosexual (straight) people and non-transgender people (called "cis" or "cisgender"). Sometimes animosity was also directed towards males, white people, gay and lesbian (non-transgender) people, aromantic and asexual people, and "terfs". One participant explained, "They are constantly putting down straight, white people for being privileged, dumb and boring." Another participant elaborated, "In general, cis-gendered people are considered evil and unsupportive, regardless of their actual views on the topic. To be heterosexual, comfortable with the gender you were assigned at birth, and non-minority places you in the 'most evil' of categories with this group of friends. Statement of opinions by the evil cis-gendered population are considered phobic and discriminatory and are generally discounted as unenlightened."

**Theme: individuals targeted.** In addition to targeting specific groups of people for mocking, the AYAs and their friend groups also directed mocking towards individuals in the AYAs'

lives such as parents, grandparents, siblings, peers, allies, and teachers. The following quotes describe individuals targeted. One participant said, “They call kids who are not LGBT dumb and cis. And the mocking has been aimed at my transgender-identified child’s [sibling].” Another parent said, “They definitely made fun of parents and teachers who did not agree with them.” And a third participant said, “. . . they were asked to leave [a school-based LGBT club] because they were not queer enough [as straight and bisexual allies]. [One of them] was [then] bullied, harassed and denounced online.”

**Theme: behaviors occurred both in person and in online settings.** Parents observed the behaviors both in-person and in online settings, and specifically mentioned seeing posts and conversations on Tumblr, Twitter, Facebook, and Instagram. One participant said, “They speak with derision about how cis-gendered people do not understand them and are so close-minded.” Another participant said, “I hear them disparaging heterosexuality, marriage and nuclear families.” Another participant said, “On my daughter’s Tumblr blog, she has liked or favorited or reposted disparaging comments about those who aren’t transgender or seem to misunderstand the transgender identity.” And another parent reported, “Her real life friends don’t [mock non-LGBT people] but online they are always swapping jokes and comments about cisgender and about transphobia.”

**Theme: examples of behaviors.** Participants gave many examples of the observed behaviors that were mocking towards non-transgender people and non-LGB people. One participant said, “My daughter called me a ‘breeder’ and says things in a mocking ‘straight person voice’. Her friends egg her on when she does this.” Another parent offered, “If they aren’t mocking ‘cis’ people, they are playing pronoun police and mocking people who can’t get the pronouns correct.” Another participant said, “New vocabulary includes ‘cis-stupid’ and ‘cis-stupidity.’” And a fourth participant described, “They assume anyone that is critical about being transgender (even just asking questions) is either ignorant or filled with hate.”

**Theme: emphasizing victimhood.** Participants described that their children and friend group seemed to focus on feeling as though they were victims. One participant described, “They seem to wear any problems they may have, real or perceived like badges of honor. . . I feel like they want to believe they are oppressed & have really ‘been through life’, when they have little life experience.” Another participant said, “. . . there is a lot of feeling like a victim [and being] part of a victimized club.” Another parent said “But all talk is very ‘victim’ centered”. And finally, another said, “They passionately decry ‘Straight Privilege’ and ‘White Male Privilege’—while emphasizing their own ‘Victimhood.’”

**Theme: consequences of behaviors.** A few participants describe that because of their child’s behavior, there were consequences, including making it difficult for one child to return to her school and the following description from another parent, “Most relatives have blocked her on [social media] over constant jokes regarding cis and straight people.”

**Theme: fueling the behaviors.** In some cases, parents describe a synergistic effect of kids encouraging other kids to persist in the behavior as was described in a previous quote, “Her friends egg her on when she does this” as well as the following, “Lots of discussion revolving around how their teachers ‘discriminate’ or are ‘mean’ to them based on their declared LGBTIA identity, and they get each other riled up convincing each other of their persecution by these perceived wrongs . . . privately they mock our intolerance, and in person act upon these false beliefs by treating us as people out to get them. . .”

## Internet/social media exposure

In the time period just before announcing that they were transgender, 63.5% of AYAs exhibited an increase in their internet/social media (Table 7). To assess AYA exposure to existing

online content, parents were asked what kind of advice their child received from someone/people online. AYAs had received online advice including how to tell if they were transgender (54.2%); the reasons that they should transition right away (34.7%); that if their parents did not agree for them to take hormones that the parents were “abusive” and “transphobic” (34.3%); that if they waited to transition they would regret it (29.1%); what to say and what not to say to a doctor or therapist in order to convince them to provide hormones (22.3%); that if their parents were reluctant to take them for hormones that they should use the “suicide narrative” (telling the parents that there is a high rate of suicide in transgender teens) to convince them (20.7%); and that it is acceptable to lie or withhold information about one’s medical or psychological history from a doctor or therapist in order to get hormones/get hormones faster (17.5%). Two respondents, in answers to other questions, described that their children later

**Table 7. Internet/social media exposures.**

		n	%
AYAs internet/social media use just prior to announcement		255	
	Increased social media/internet use	162	63.5
	Decreased social media/internet use	3	1.2
	Unchanged social media/internet use	49	19.2
	Don’t know	41	16.1
AYA exposure to internet content/advice*		251	
	How to tell if they are transgender	136	54.2
	The reasons that they should transition right away	87	34.7
	That if their parents did not agree to take them for hormones, that the parents are “abusive” and “transphobic”	86	34.3
	That if they waited to transition they would regret it	73	29.1
	That if they didn’t transition immediately they would never be happy	72	28.7
	How to order physical items (binders, packers, etc) without parents finding out	67	26.7
	What to say and what NOT to say to a doctor or therapist in order to convince them to provide hormones	56	22.3
	That if their parents are reluctant to take them for hormones, that they should use the “suicide narrative” to convince them (telling the parents that there is a high rate of suicide in transgender teens.)	52	20.7
	Medical advice about the risks and benefits of hormones	55	21.9
	Medical advice about the risks and benefits of surgery	47	18.7
	That it is acceptable to lie to or withhold information about one’s medical or psychological history from a doctor or therapist in order to get hormones/get hormones faster	44	17.5
	How to hide physical items from parents	40	15.9
	How to hide or make excuses for physical changes	26	10.4
	How to get money from others online in order to pay for medications, etc	25	10.0
	How to get hormones from online sources	24	9.6
	How to hide hormones from parents	21	8.4
	I don’t know if my child received online advice about these topics	127	50.6

\*may select more than one answer.

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told them what they learned from online discussion lists and sites. One parent reported, “He has told us recently that he was on a bunch of discussion lists and learned tips there. Places where teens and other trans people swap info. Like to use [certain, specific] words [with] the therapist when describing your GD, because [they are] code for potentially suicidal and will get you a diagnosis and Rx for hormones.” Another parent disclosed, “The threat of suicide was huge leverage. What do you say to that? It’s hard to have a steady hand and say no to medical transition when the other option is dead kid. She learned things to say that would push our buttons and get what she wanted and she has told us now that she learned that from trans discussion sites.”

Parents identified the sources they thought were most influential for their child becoming gender dysphoric. The most frequently answered influences were: YouTube transition videos (63.6%); Tumblr (61.7%); a group of friends they know in person (44.5%); a community/group of people that they met online (42.9%); a person they know in-person (not online) 41.7%. In contrast to the majority of responses, two participants commented that they didn’t think the sources influenced their child to become gender dysphoric, rather they gave their child a name for their feelings or gave the child confidence to come out. The following quotes illustrate the dominant quantitative findings. One parent wrote, “We believe the biggest influence was the online pro-transition blogs and youtube videos. We feel she was highly influenced by the ‘if you are even questioning your gender-you are probably transgender’ philosophy. . .In the ‘real world’ her friends, other trans peers, and newfound popularity were additional areas of reinforcement.” Another respondent described the online influence as part of a different question,

**Table 8. Outcomes and behaviors.**

Characteristics	n	%
AYA mental well-being since announcement	254	
Worse	120	47.2
Better	32	12.6
Unchanged or mixed	101	39.8
Don’t know	1	0.4
Parent-child relationship since announcement	253	
Worse	145	57.3
Better	18	7.4
Unchanged or mixed	89	35.2
Don’t know	1	0.4
Grades/academic performance	220	
Worse	76	34.5
Better	14	6.4
Unchanged/mixed	130	59.1
Range of interests and hobbies	255	
Much broader	2	0.8
Somewhat broader	11	4.3
Unchanged	93	36.5
Somewhat narrower	64	25.1
Much narrower	56	22.0
There are very few topics outside of transgender issues that my child is interested in	28	11.0
Don/t know	1	0.4

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“I believe my child experienced what many kids experience on the cusp of puberty—uncomfortableness!—but there was an online world at the ready to tell her that those very normal feelings meant she’s in the wrong body.”

## Mental well-being, mental health, and behaviors

The trajectories of the AYAs were not consistent with the narrative of discovering one’s authentic self and then thriving. Specifically, parents reported that, after “coming out,” their children exhibited a worsening of their mental well-being. Additionally, parents noted worsening of the parent-child relationship and observed that their children had narrowed their interests (Table 8). Although small numbers of AYAs had improvement in mental well-being (12.6%), parent-child relationship (7.4%), grades/academic performance (6.4%), and had broadened their interests and hobbies (5.1%); the most common outcomes were worsened mental well-being (47.2%); worsened parent child relationship (57.3%); unchanged or mixed grades/academic performance (59.1%); and a narrowed range of interests and hobbies (58.1%). One parent describing her child’s trajectory offered, “After announcing she was transgender, my daughter’s depression increased significantly. She became more withdrawn. She stopped participating in activities which she previously enjoyed, stopped participating in family activities, and significantly decreased her interaction with friends. Her symptoms became so severe that she was placed on medication by her physician.” Table 9 describes cumulative rates of mental illness and neurodevelopmental disability at the time of survey.

A total of 63.8% of the parents have been called “transphobic” or “bigoted” by their children for one or more reasons, the most common being for: disagreeing with the child about the child’s self-assessment of being transgender (51.2%); recommending that the child take more time to figure out if their feelings of gender dysphoria persist or go away (44.6%); expressing concerns for the child’s future if they take hormones and/or have surgery (40.4%); calling their child by the pronouns they used to use (37.9%); telling the child they thought that hormones or surgery would not help them (37.5%); recommending that their child work on other mental health issues first to determine if they are the cause of the dysphoria (33.3%); calling the child by their birth name (33.3%); or recommending a comprehensive mental health evaluation before starting hormones and/or surgery (20.8%) (Table 10). There were eight cases of estrangement. Estrangement was child-initiated in six cases where the child ran away, moved out, or otherwise refused contact with parent. There were two cases where the estrangement was initiated by the parent because the AYA’s outbursts were affecting younger siblings or there was a threat of violence made by the AYA to the parent.

**Table 9. AYA Cumulative mental disorder and neurodevelopmental disability diagnoses.**

Characteristics	n	%
Mental disorder or neurodevelopmental disability	243	
Anxiety	154	63.4
Depression	143	58.8
Attention Deficit Hyperactivity Disorder (ADHD)	36	14.8
Obsessive Compulsive Disorder (OCD)	30	12.3
Autism Spectrum Disorder (ASD)	30	12.3
Eating Disorder	17	7.0
Bipolar Disorder	17	7.0
Psychosis	8	3.3
None of above	52	21.4
(Other) Borderline	7	2.9
(Other) Oppositional Defiant Disorder	2	0.8

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**Table 10. Additional behaviors.**

		n	%
Parents have been called “transphobic” or “bigoted” by their child for the following reasons*		240	
	Disagreeing with their child about the child’s assessment of being transgender	123	51.2
	Recommending that their child take more time to figure out if their feelings of gender dysphoria persist or go away	107	44.6
	Expressing concerns for their child’s future if the child were to take hormones and/or have surgery	97	40.4
	Referring to their child by the pronouns that they used to use before announcement	91	37.9
	Telling their child that they thought hormones/surgery would not help them	90	37.5
	Calling their child by the child’s birth name	80	33.3
	Recommending that their child work on other mental health issues first to determine if they are the cause of their dysphoria	80	33.3
	Recommending therapy for basic mental health issues (not related to gender)	74	30.8
	Recommending a comprehensive evaluation before starting hormones and/or surgery	50	20.8
	None of the above	87	36.2
Distrust and isolating behaviors exhibited by AYAs*		251	
	Expressed distrust of information about gender dysphoria and transgenderism coming from mainstream doctors and psychologists	130	51.8
	Tried to isolate themselves from their family	124	49.4
	Expressed that they ONLY trust information about gender dysphoria and transgenderism that comes from transgender websites and/or transgender people and sources	117	46.6
	Lost interest in activities where participants aren’t predominantly transgender or LGBTIA	81	32.3
	Lost interest in activities that were not related to transgender or LGBTIA issues	65	25.9
	Stopped spending time with friends who are not transgender	63	25.1
	Expressed distrust of people who are not transgender	57	22.7
	Expressed hostility towards people who are not transgender	46	18.3
	None of the above	44	17.5
Other behavior and outcomes for AYAs*		249	
	Withdrawn from family	112	45.0
	Told other people or posted on social media that their parent is “transphobic”, “abusive”, or “toxic” because the parent does not agree with the child’s assessment of being transgender	107	43.0
	Refused to speak to parent	71	28.5
	Defended the practice of lying to or withholding information from therapists or doctors in order to obtain hormones for transition more quickly	41	16.5
	Tried to run away	17	6.8
	Been unable to obtain a job	25	10.0
	Been unable to hold a job	18	7.2
	Dropped out of college	12	4.8
	Dropped out of high school	12	4.8
	Needed to take a leave of absence from college	12	4.8
	Been fired from a job	9	3.6
	Needed a leave of absence from high school	1	0.4
	None of the above	86	34.5
For any of the above, is this a significant change from the child’s baseline behavior?		161	
	Yes	115	71.4
	No	46	28.6

\* may select more than one answer.

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**Table 11. Interactions with clinicians.**

		n	%
Did the AYA see a gender therapist, go to a gender clinic or see a physician for the purpose of transition?		254	
	No	151	59.4
	Yes	92	36.2
	Don't know	11	4.3
Did the therapist/physician/clinic staff explore issues of mental health, previous trauma, or any alternative causes of gender dysphoria before proceeding?		100	
	Yes	21	21.0
	No	53	53.0
	Don't know	26	26.0
Did the therapist/physician/clinic staff request any medical records before proceeding?		99	
	Yes	21	21.2
	No	49	49.5
	Don't know	29	29.3
Of parents who knew the content of the visit, did the AYA receive an Rx for puberty blockers and/or cross-sex hormones at their first visit?		80	
	AYA received an Rx for puberty blockers and/or cross-sex hormones at their first visit	17	21.2
	AYA was offered a Rx for puberty blockers and/or cross-sex hormones at their first visit, but AYA or parent declined	2	2.5
	Total number of AYAs who received or were offered an Rx at first visit	19	23.8
	AYAs who did not receive/were not offered an Rx at their first visit	61	76.2
Did AYA misrepresent their history to the doctor or relay their history accurately?		96	
	Parent is reasonably sure or positive that their child misrepresented or omitted parts of their history	64	66.7
	Parent is reasonable sure or positive that their child relayed their history completely and accurately	12	12.5
	Don't know	20	20.8

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AYAs are reported to have exhibited one or more of the following behaviors: expressed distrust of information about gender dysphoria and transgenderism coming from mainstream doctors and psychologists (51.8%); tried to isolate themselves from their family (49.4%); expressed that they only trust information about gender dysphoria and transgenderism that comes from transgender websites and/or transgender people and sources (46.6%); lost interest in activities where participants aren't predominantly transgender or LGBTIA (32.3%); stopped spending time with friends who were not transgender (25.1%); expressed distrust of people who were not transgender (22.7%) (Table 10). Many AYAs have also: withdrawn from their family (45.0%); told other people or posted on social media that their parent is "transphobic," "abusive," or "toxic" because the parent does not agree with child's self-assessment of being transgender (43.0%); refused to speak to their parent (28.5%), defended the practice of lying to or withholding information from therapists or doctors in order to obtain hormones for transition more quickly (16.5%); tried to run away (6.8%). The behaviors and outcomes listed above

were considered significant changes from the child's baseline behaviors for 71.4% of respondents checking any of the items.

There was a subset of eight cases where parents described watching their child have declining mental well-being as they became gender dysphoric and transgender-identified and then had improving mental well-being as they dropped or backed away from a transgender-identification. One parent described a marked change in her daughter when she was out of school temporarily. "[Her] routine was disrupted. She spent all day on the internet, and lost her many school friends—her only friends were on-line and members of the trans community. In three months, my daughter announced she is trans, gender dysphoric, wants binders and top surgery, testosterone shots. . .she started self-harming. Now back at school. . .she tweeted that she's so young, isn't sure if she is trans, no longer wants to be referred to by the male name she had chosen. . .Since she has started back at school and is being exposed to a wide variety of people she is WAY happier." Another parent described, "My daughter's insight has improved considerably over the last few years, and she has also outgrown the belief that she is transgender. My daughter actually seemed to be looking for a reason for her depression which is now being successfully treated. . .My daughter is MUCH happier now that she is being treated for her genuine issues. Coming out as trans made her much worse for a while."

There was a subset of 30 cases where the AYAs' transgender-identification occurred in the context of a decline in their ability to function (such as dropping out of high school or college, needing a leave of absence from high school or college, and/or being unable to obtain or hold a job), which parents reported as a significant change from their child's baseline behavior. The declines were substantial as 43.3% of these AYAs had been identified as academically gifted students (some described as top of their class in high school, earning outstanding grades at prestigious universities) before they began to fail their classes, drop out of high school or college, and became unable to hold a job. In most of these cases (76.7%), there was one or more psychiatric diagnosis made at the same time or within the year (60.0%) or within two years (16.7%) of the AYA's new transgender-identification. Of the 23 individuals who had a psychiatric diagnoses made within two years of assuming a transgender-identification, 91.3% (21/23) were diagnosed with depression; 73.9% (17/23) with anxiety; 26.0% (6/23) with bipolar disorder; 17.4% (4/23) with borderline personality disorder; 8.7% (2/23) with psychosis/psychotic episode; and 8.7% (2/23) with an eating disorder.

## Clinical encounters

Parents were asked if their child had seen a gender therapist, gone to a gender clinic, or seen a physician for the purpose of beginning transition and 92 respondents (36.2%) answered in the affirmative (Table 11). Many of the respondents clarified that their child had seen a clinician regarding their gender dysphoria for evaluation only. Although participants were not asked directly what kind of provider their child saw, specialties that were mentioned in answers included: general psychologists, pediatricians, family doctors, social workers, gender therapists, and endocrinologists. For parents who knew the content of their child's evaluation, 71.6% reported that the clinician did not explore issues of mental health, previous trauma, or any alternative causes of gender dysphoria before proceeding and 70.0% report that the clinician did not request any medical records before proceeding. Despite all of the AYAs in this study sample having an atypical presentation of gender dysphoria (no gender dysphoria prior to puberty), 23.8% of the parents who knew the content of their child's visit reported that the child was offered prescriptions for puberty blockers and/or cross-sex hormones at the first visit.

One participant described, "For the most part, I was extremely frustrated with providers NOT acknowledging the mental disorder, anxiety, depression, etc before recommending

hormone replacement therapy.” And two participants described how the clinician treating their child’s gender dysphoria refused to speak with the patients’ primary care physicians. One participant said, “When we phoned the clinic, the doctor was hostile to us, told us to mind our own business. Our family doctor tried to reach our son’s new doctor, but the trans doctor refused to speak with her.” Another respondent shared “The pediatrician/‘gender specialist’ did not return calls or emails from the primary care physician who requested to talk with her about my son’s medical history before she saw and treated him. . .she disregarded all historical information provided by the family and primary care physician. . .did not verify any information provided by my. . .son at his first visit even after being provided with multiple other historical sources which differed significantly from his story.”

When asked about whether their child relayed their history completely and accurately to clinicians or whether they misrepresented or omitted parts of their history, of those who knew the content of their child’s visit, 84.2% of the parent respondents were reasonably sure or positive that their child had misrepresented or omitted parts of their history. Twenty-eight participants provided optional open text responses to this question and the responses were categorized into: describing how the parent knew that the child misrepresented their history (5); the content of what the child misrepresented (6 misrepresenting in general, 4 misrepresenting to the clinician for a total of 10 examples); don’t know/not sure (4); expressing certainty (1); and not relevant (8). For the five participants describing how they knew, the reasons included: being present when it happened, reading the report from the gender specialist, being told by their child that the child had misrepresented the truth, and being informed by the child’s psychiatrist. One respondent shared, “I have read the report from the gender specialist and it omits all the relevant context painting an almost unrecognizable picture of my son.” A second parent simply responded, “I was present.” Another respondent relayed about their (natal male) child, “My daughter told me and her mother that the first therapist she saw asked her stereotypical questions. . .She was afraid that if she didn’t describe herself as a ‘typical girl’ she would not be believed.” And finally, one respondent wrote, “He has said now that he did [misrepresent his history] and used key words he was advised to say.” Ten participants provided 13 examples of the content of misrepresentations and of these, 6 examples could have been easily verified to be false (claiming to be under the care of a psychiatrist, claiming to be on medication to treat a psychiatric condition, how one was doing academically, and claiming a childhood history of having playmates of one sex when the opposite was observed, and claiming strong childhood preferences for specific toys and clothing that is the opposite of what multiple individuals observed). Three of the content examples would have been challenging to verify as false including: how one was feeling as a child, how one was feeling when a picture was taken, and whether one was from an abusive home. And four of the content examples did not provide enough information to determine if they would be easy or challenging to verify as false, such as “My child distorts her history and our family life on a regular basis,” and “He has created an entire narrative that just isn’t true.”

In addition to the previously mentioned case where the child literally rewrote her history by editing her diary, there were seven respondents who conveyed a process where their child was constantly rewriting their personal history to make it consistent with the idea that they always were transgender and/or had created a childhood history that was not what others had observed. It is unclear whether this process was deliberate or if the individuals were unaware of their actions. The following are quotes describing this phenomenon. One parent said, “. . .she is actively rewriting her personal history to support the idea that she was always trans.” Another respondent added, “. . .my daughter denies events I recollect from her childhood and puberty that contradicts her narrative of ‘always knowing she was a boy.’” Another respondent offered, “He is rewriting his personal history to suit his new narrative.” And a fourth respondent described,



“[Our] son has completely made up his childhood to include only girl friends and dressing up in girls clothes and playing with dolls, etc. This is not the same childhood we have seen as parents.”

**Qualitative analysis.** The open-ended comments from the question about whether the clinician explored mental health, trauma or alternative causes of gender dysphoria before proceeding were selected for qualitative analysis. Nine major themes emerged from the data. Each theme is described in the following paragraphs with supporting quotes from participants.

**Theme: failure to explore mental health, trauma or alternative causes of GD.** Parents described that clinicians failed to explore their child’s mental health, trauma, or any alternative causes for the child’s gender dysphoria. This failure to explore mental health and trauma occurred even when patients had a history of mental health disorder or trauma, were currently being treated for a mental health disorder, or were currently experiencing symptoms. One participant said, “Nothing other than gender dysphoria was considered to explain my daughter’s desire to transition.” Another participant said, “My daughter saw a child therapist and the therapist was preparing to support transgending and did not explore the depression and anxiety or previous trauma.”

**Theme: insufficient evaluation.** Another theme was insufficient evaluation where parents described evaluations that were too limited or too superficial to explore mental health, trauma or alternative causes of gender dysphoria. The following are three quotes by three different parents describing insufficient evaluations. One parent said, “The exploration was egregiously insufficient, very shallow, no effort to ask questions, engage in critical thinking about coexisting anxiety, or put on the brakes or even slow down.” Another participant stated, “When we tried to give our son’s trans doctor a medical history of our son, she refused to accept it. She said the half hour diagnosis in her office with him was sufficient, as she considers herself an expert in the field.” And a third parent wrote, “We were STUNNED by the lack of information, medical history sought by therapist and radical treatment suggestion. [One] visit. The idea is, ‘if they say they were born in the wrong body, they are. To question this will only hurt her and prolong her suffering.’ [Our] daughter has had trauma in [the] past. [She] never was asked about it. [The] therapist did not ask parents a single question about our daughter.”

**Theme: unwillingness or disinterest in exploring mental health, trauma or alternative causes of GD.** Parents described that clinicians did not seem interested or willing to explore alternative causes. One parent described, “Her current therapist seems to accept her self diagnosis of gender dysphoria and follows what she says without seeming too much interested in exploring the sexual trauma in her past.” Another parent wrote, “The Asperger psychiatrist did not seem to care whether our daughter’s gender dysphoria stemmed from Asperger’s. If our daughter wanted to be male, then that was enough.” And a third parent said, “The therapist did ask about those issues but seemed to want to accept the idea wholeheartedly that my daughter was transgender first and foremost, all other factors aside.”

**Theme: mental health was explored.** A few parents had the experience where the clinician either made an appropriate referral for further evaluation or the issues had been addressed previously. One parent said, “[The] previous mental health issues [were] already explored by other therapists ([my] child was in therapy and medicated before coming out as transgender).”

**Theme: failure to communicate with patients’ medical providers.** Several participants described clinicians who were unwilling to communicate with primary care physicians and mental health professionals even those professionals who were currently treating the patient. One participant relayed, “She did not review the extensive psychiatric records that were available in a shared EMR [electronic medical record] and she did not consult with his outpatient psychiatrist prior to or after starting cross-sex hormonal therapy.” Another parent said, “My child had been seen for mental health issues for several years before presenting this new

identity, but the endocrinologist did not consult the mental health professionals for their opinions before offering hormones.”

**Theme: misrepresentation of information by the patient.** Several participants described how their child misrepresented their history to the clinician, thus, limiting the clinician’s ability to adequately explore mental health, trauma and alternative causes. One participant wrote, “At [the] first visit, [my] daughter’s dialogue was well-rehearsed, fabricated stories about her life told to get [the] outcome she desired. She parroted people from the internet.” Another parent reported, “My son concealed the trauma and mental health issues that he and the family had experienced.” And a third parent said, “I overheard my son boasting on the phone to his older brother that ‘the doc swallowed everything I said hook, line and sinker. Easiest thing I ever did.’”

**Theme: transition steps were pushed by the clinician.** Some parents described clinicians who seemed to push the process of transition before the patient asked for it. One parent described that the doctor gave her daughter a prescription that she didn’t ask for, “The family doctor who gave her the Androgel Rx [prescription] did NOT ask her many questions (she was surprised by this), nor did he await her assessment by a licensed psychiatrist before giving her this Rx. Nor did she ask him for this Rx.” Another parent reported that she and her child were at the endocrinologist’s office only to ask questions, and described, “. . . [he] didn’t listen to a word we were saying. He was too eager to get us set up with a ‘gender therapist’ to get the legal form he needed to start hormones, all while making sure we set up our next appointment within 6 months to start the hormones. . .”

**Theme: parent views were discounted or ignored.** Parents describe that the clinicians did not take their concerns seriously. One parent described, “I have to say I don’t know, but it is hard to believe that they adequately examined the history of bullying and being ostracized for being different, and the autistic traits that would lend a person like my son to risk everything for identifying with a group. I know that in the few contacts I had with the providers, my concerns were discounted.” And another said, “All of our emails went unanswered and were ignored. We are left out of everything because of our constant questioning of this being right for our daughter [because of her] trauma and current depression, anxiety and self-esteem problems.”

**Theme: parent had concerns about the clinicians’ competence, professionalism or experience.** Parents expressed doubts about the clinicians regarding their experience, competence or professionalism. One parent said, “The clinic told me they explored these issues. I asked the risk manager at [redacted] if they’d considered a personality disorder. ‘Oh, no,’ she laughed. ‘That’s only with the older patients, not the teenagers.’ I’m deeply suspicious of their competence.” Another parent described, “What does concern me is that the people she talked to seemed to have no sense of professional duties, but only a mission to promote a specific social ideology.”

## Steps towards transition and current identification status

This section reports on the duration of AYA transgender-identification (time from the AYA’s announcement of a transgender identity until the time the parent completed the survey) that covers, on average, 15.0 months (range 0.1–120 months) with a median of 11 months (Table 12). The steps taken towards transition during this timeframe are listed in Table 12. At the end of the timeframe, 83.2% of the AYAs were still transgender-identified, 5.5% were not still transgender-identified (desisted), 2.7% seemed to be backing away from transgender-identification, and 8.6% of the parents did not know if their child was still identifying as transgender. Descriptions of backing away or moving from transgender-identified to not transgender-identified include the

following. One parent observed, “She identified as trans for six months . . . Now back at school, she is thinking maybe she’s not trans.” Another parent offered, “My daughter [identified] as trans from ages 13–16. She gradually desisted as she developed more insight into who she is.” One parent described that after one year of identifying as transgender, “basically, she changed her mind once she stopped spending time with that particular group of friends.” The duration of transgender-identification of the AYAs who were still transgender-identified at the time of survey was compared to the duration of those who were no longer transgender-identified and those who seemed to be backing away from a transgender-identification (combined) by t-test. The difference between these groups was statistically significant ( $p = .025$ ), with a t-value of -2.25 showing that those who were no longer transgender-identified and backing away had a longer duration of identification (mean = 24.1 months) and those who were still transgender-identified had a shorter mean duration (mean = 14.4 months).

To explore the differences between the AYAs who had exposure to social influence (friend group, internet/social media, or both) and AYAs who did not have a clear exposure to social influence (neither and don’t know), a series of chi-squared calculations were performed for selected variables. (See Table 13.) Statistically significant differences were revealed for AYAs with exposure to social influences having worse outcomes for mental well-being and parent-

**Table 12. Transition steps and disposition.**

	n	%
Transition Steps*	256	
Changed hairstyle	216	84.4
Changed style of clothing	210	82.0
Asks to be called a new name	188	73.4
Asks for different pronouns	175	68.4
Taken cross-sex hormones	29	11.3
Legally changed name on government documents	19	7.4
Taken anti-androgens	11	4.3
Taken puberty blockers	7	2.7
Had surgery	5	2.0
None of the above	14	5.5
Disposition	256	
Still transgender-identified	213	83.2
Not transgender-identified any more (desisted)	14	5.5
Seems to be backing away from transgender-identification	7	2.7
Parent doesn’t know if the child is still transgender-identified	22	8.6
De-transitioned (also counted in desisted category)	3	1.2
Duration of transgender-identification overall	225	
Median duration 11 months, Mean duration 15.0 months (range 0.1 months-120 months), median 11 months		
Duration of transgender-identification if still transgender-identified	204	
Median duration 11 months, mean duration 14.4 months, range (.1 months-72 months)		
Duration of transgender-identification if no longer transgender-identified	13	
Median duration 12 months, mean duration 24.2 months, range (.75 months to 120 months)		
Duration of transgender-identification if backing away	8	
Median duration 12 months, mean duration 15 months, range (3 months-36 months)		

\*may select more than one answer.

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Table 13. chi-squared comparisons for exposure to social influence (SI) vs not exposure to social influence (NSI).

		SI n (%)	NSI n (%)	p
Sex		222	34	.123
	Female	187 (84.2)	25 (73.5)	
	Male	35 (15.8)	9 (26.5)	
Indicators of childhood GD		221	33	.004
	0–2 indicators	216 (97.7)	29 (87.9)	
	3–4 indicators	5 (2.3)	4 (12.1)	
Currently have two or more GD indicators		214	34	.808
	Yes	179 (83.6)	29 (85.3)	
	No	35(16.4)	5(14.7)	
No mental health or NDD diagnoses before onset of GD		222	34	.036
	Answered “None of the above”	87 (39.9)	7 (20.6)	
Mental well-being since announcement		220	33	.001
	Worse	114 (51.8)	6 (18.2)	
	Better	24 (10.9)	8 (24.2)	
	Unchanged/Mixed	82 (37.3)	19 (57.6)	
Parent-child relationship since announcement		219	33	.006
	Worse	134 (61.2)	11 (33.3)	
	Better	13 (5.9)	5 (15.2)	
	Unchanged/Mixed	72 (32.9)	17 (51.5)	
Range of interests and hobbies		220	34	.000
	Broader range of interests and hobbies	10	3	
	Narrowed range of interest and hobbies	139	9	
	Unchanged range	71	22	
Distrust and Isolating Behaviors		222	34	
	Tried to isolate themselves from family	114 (51.4)	10 (29.4)	.017
	Expressed that they ONLY trust information about GD and transgenderism that comes from transgender sources	107 (48.2)	10 (29.4)	.041
	Lost interest in activities where participants aren’t predominantly transgender or LGBTIA	76 (34.2)	5 (14.7)	.023
	Stopped spending time with non-transgender friends	59 (26.6)	4 (11.8)	.062
	Expressed distrust of people who are not transgender	52 (23.4)	5 (14.7)	.255
	Told people or posted on social media that their parent is “transphobic,” “abusive,” or “toxic” because the parent doesn’t agree with the child’s assessment of being transgender	102 (45.9)	5 (14.7)	.000

(Continued)

Table 13. (Continued)

		SI n (%)	NSI n (%)	p
	Defended the practice of lying to or withholding information from doctors/therapists to get hormones for transition more quickly	38 (17.1)	3 (8.8)	.219
	Brought up the issue of suicide in transgender teens as a reason parents should agree to treatment	55 (24.8)	4 (11.8)	.093
Did the AYA misrepresent their history to the doctor or relay it accurately?		68	8	.075
	Parent is reasonable sure or positive that their child misrepresented or omitted parts of their history	59 (86.8)	5 (62.5)	
	Parent is reasonable sure or positive that child relayed their history completely and accurately	9 (13.2)	3 (37.5)	

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child relationships, and greater numbers exhibiting distrust, isolating and anti-social behaviors including: narrowed range of interests and hobbies, expressing that they only trusted information from transgender sources, trying to isolate themselves from their family, losing interest in activities that weren't predominantly with transgender or LGBTIA participants, and telling people or posting on social media that their parent is "transphobic," "abusive," or "toxic" because the parent doesn't agree with the child's assessment of being transgender. Although the differences in additional isolating and anti-social behaviors did not reach statistical significance, these behaviors trended towards higher rates in the AYAs who were exposed to social influence and may have not reached significant levels due to small numbers. No significant difference for age of AYA (at announcement or at time of survey completion) was detected between groups by a one-way ANOVA.

## Discussion

This research describes parental reports about a sample of AYAs who would not have met diagnostic criteria for gender dysphoria during their childhood but developed gender dysphoria during adolescence or young adulthood. The strongest support for considering that the gender dysphoria was new in adolescence or young adulthood is the parental answers for DSM 5 criteria for childhood gender dysphoria. Not only would none of the population have met threshold criteria, the vast majority had zero indicators. Although one might argue that three of the indicators could plausibly be missed by a parent (A1, A7, and A8 if the child had not expressed these verbally), five of the indicators (A2-6) are readily observable behaviors and preferences that would be difficult for a parent to miss. Six indicators (including A1) are required for a threshold diagnosis. The nonexistent and low numbers of readily observable indicators reported in the majority of this population does not support a scenario in which gender dysphoria was always present but was only recently disclosed to the parents.

Before the onset of their gender dysphoria, many of the AYAs had been diagnosed with at least one mental health disorder or neurodevelopmental disability and many had experienced a traumatic or stressful event. Experiencing a sex or gender related trauma was not uncommon, nor was experiencing a family stressor (such as parental divorce, death of a parent, or a mental health disorder in a sibling or parent). Additionally, nearly half had been engaging in self-harm prior to the onset of their gender dysphoria. In other words, many of the AYAs and their families had been navigating multiple challenges and stressors before gender dysphoria and transgender-identification became part of their lives. This context could possibly contribute to friction between parent and child and these complex, overlapping difficulties as well as experiences of same-sex attraction may also be influential in the development of a transgender

identification for some of these AYAs. Care should be taken not to overstate or understate the context of pre-existing diagnoses or trauma in this population as they were absent in approximately one third and present in approximately two thirds of the sample.

This research sample of AYAs also differs from the general population in that it is predominantly natal female, white, and has an over-representation of individuals who are academically gifted, non-heterosexual, and are offspring of parents with high educational attainment [41–43]. The sex ratio favoring natal females is consistent with recent changes in the population of individuals seeking care for gender dysphoria. Gender clinics have reported substantial increases in referrals for adolescents with a change in the sex ratio of patients moving from predominantly natal males seeking care for gender dysphoria to predominantly natal females [19, 44–46]. Although a decrease in stigma for transgender individuals might explain some of the rise in the numbers of adolescents presenting for care, it would not directly explain the inversion of the sex ratio. It is plausible that rapid-onset of gender dysphoria may have some similarities to anorexia nervosa and the characteristics that make female adolescents more susceptible than male adolescents to anorexia nervosa may be the same characteristics that make natal females more susceptible than natal males to rapid-onset gender dysphoria. The unexpectedly high rate of academically gifted AYAs may be related to the high educational attainment of the parents and may be a reflection of parents who are online, able to complete online surveys and are able to question and challenge current narratives about gender dysphoria and transition. There may be other unknown variables that render academically gifted AYAs susceptible to rapid-onset gender dysphoria. The higher than expected rate of non-heterosexual orientations of the AYAs (prior to announcement of a transgender-identity) may suggest that the desire to be the opposite sex could stem from experiencing homophobia as a recent study showed that being the recipient of homophobic name calling from one's peers was associated with a change in gender identity for adolescents [47]. The potential relationship of experienced homophobia and the development of ROGD deserves further study.

This population is distinctively different than what is described in previous research about gender dysphoria because of the distribution of new cases occurring in cluster outbreaks in friendship groups, the preponderance of adolescent (natal) females, the absence of childhood gender dysphoria, and the suddenness of onset. The gender dysphoria and transgender-identification of rapid-onset gender dysphoria may be temporary. The study's findings on duration of transgender-identification suggests that a longer observation period might reveal greater rates of desistence and is consistent with anecdotal reports of adolescents who desisted from rapid-onset gender dysphoria approximately 9 to 36 months after presentation. Although it is still unknown whether transition in gender dysphoric individuals decreases, increases, or fails to change the rates of attempted or completed suicides [48] this study documents AYAs using a suicide narrative to manipulate parents and doctors into supporting and providing transition services. Despite the possibility that the AYAs are using a suicide narrative to manipulate others, it is critical that any suicide threat, ideation or concern is taken seriously and the individual should be evaluated immediately by a mental health professional.

The majority of parents were reasonably sure or certain that their child misrepresented or omitted key parts of their history to their therapists and physicians. In some cases, the misrepresentation of one's history may simply be a deliberate act by a person who is convinced that transition is the only way that they will feel better and who may have been coached that lying is the only way to get what they think they need. For others, the misrepresentation may not be a conscious act. The creation of an alternate version of one's childhood that conforms to a story of always knowing one was transgender and that is in sharp contrast to the childhood that was observed by third parties raises the question of whether there has been the creation of false childhood memories as part of, or outside of, the therapy process. Respondent accounts of



clinicians who ignored or disregarded information (such as mental health symptoms and diagnoses, medical and trauma histories) that did not support the conclusion that the patient was transgender, suggests the possibility of motivated reasoning and confirmatory biases on the part of clinicians. In the 1990s, the beliefs and practices of many mental health professionals may have contributed to their patients' creation of false childhood memories consistent with a child sexual abuse narrative and research since then has shown that false childhood memories of mundane events can be implanted in laboratory settings [49–51]. It may be worthwhile to explore if, in today's culture, there might be beliefs and practices of some mental health professionals that are contributing to their patients' creation of false childhood memories consistent with an "always knew/always were transgender" narrative.

## Emerging hypotheses

**Hypothesis 1: Social contagion is a key determinant of rapid-onset gender dysphoria (ROGD).** It is unlikely that friends and the internet can make people transgender. However, it is plausible that the following can be initiated, magnified, spread, and maintained via the mechanisms of social and peer contagion: (1) the *belief* that non-specific symptoms (including the symptoms associated with trauma, symptoms of psychiatric problems, and symptoms that are part of normal puberty) should be perceived as gender dysphoria and their presence as proof of being transgender; 2) the *belief* that the only path to happiness is transition; and 3) the *belief* that anyone who disagrees with the self-assessment of being transgender or the plan for transition is transphobic, abusive, and should be cut out of one's life. The spread of these beliefs could allow vulnerable AYAs to misinterpret their emotions, incorrectly believe themselves to be transgender and in need of transition, and then inappropriately reject all information that is contrary to these beliefs. In other words, "gender dysphoria" may be used as a catch-all explanation for any kind of distress, psychological pain, and discomfort that an AYA is feeling while transition is being promoted as a cure-all solution.

One of the most compelling findings supporting the potential role of social and peer contagion in the development of a rapid onset of gender dysphoria is the cluster outbreaks of transgender-identification occurring in friendship groups. The expected prevalence of transgender young adult individuals is 0.7% [4]. Yet, more than a third of the friendship groups described in this study had 50% or more of the AYAs in the group becoming transgender-identified in a similar time frame, a localized increase to more than 70 times the expected prevalence rate. This is an observation that demands urgent further investigation. One might argue that the high rates of transgender-identified individuals within these friend groups were secondary only to the process of friend selection: choosing transgender-identified friends deliberately rather than the result of group dynamics and observed coping styles contributing to multiple individuals, in a similar timeframe, starting to interpret their feelings as consistent with being transgender. More research will be needed to finely delineate the timing of friend group formation and the timing and pattern of each new declaration of transgender-identification. Although friend selection may play a role in these high percentages of transgender-identifying members in friend groups, the described pattern of multiple friends (and often the majority of the friends in the friend group) *becoming* transgender-identified in a similar timeframe suggests that there may be more than just friend selection behind these elevated percentages.

There are many insights from our understanding of peer contagion in eating disorders and anorexia that may apply to the potential peer contagion of rapid-onset gender dysphoria. Just as friendship cliques can set the level of preoccupation with one's body, body image, weight, and techniques for weight loss [28–30], so too may friendship cliques set a level of preoccupation with one's body, body image, gender, and the techniques to transition. The descriptions

of pro-anorexia subculture group dynamics where the thinnest anorexics are admired while the anorexics who try to recover from anorexia are ridiculed and maligned as outsiders [30–32] resemble the group dynamics in friend groups that validate those who identify as transgender and mock those who do not. And the pro-eating-disorder websites and online communities providing inspiration for weight loss and sharing tricks to help individuals deceive parents and doctors [33–35] may be analogous to the inspirational YouTube transition videos and the shared online advice about manipulating parents and doctors to obtain hormones.

**Hypothesis 2: ROGD is a maladaptive coping mechanism for AYAs.** For some individuals, the drive to transition may represent an ego-syntonic but maladaptive coping mechanism to avoid feeling strong or negative emotions similar to how the drive to extreme weight loss can serve as an ego-syntonic but maladaptive coping mechanism in anorexia nervosa [52–53]. A maladaptive coping mechanism is a response to a stressor that might relieve the symptoms temporarily but does not address the cause of the problem and may cause additional negative outcomes. Examples of maladaptive coping mechanisms include the use of alcohol, drugs, or self-harm to distract oneself from experiencing painful emotions. One reason that the treatment of anorexia nervosa is so challenging is that the drive for extreme weight loss and weight loss activities can become a maladaptive coping mechanism that allows the patient to avoid feeling and dealing with strong emotions [54]. In this context, dieting is not felt as distressing to the patient, because it is considered by the patient to be the solution to her problems, and not part of the problems. In other words, the dieting and weight loss activities are ego-syntonic to the patient. However, distress is felt by the patient when external actors (doctors, parents, hospital staff) try to interfere with her weight loss activities thus curtailing her maladaptive coping mechanism.

Findings that may support a maladaptive coping mechanism hypothesis include that the most likely description of AYA ability to use negative emotions productively was poor/extremely poor and the majority of AYAs were described as “overwhelmed by strong emotions and tries to/goes to great lengths to avoid experiencing them.” Although these are not validated questions, the findings suggest, at least, that there is a history of difficulty dealing with emotions. The very high expectation that the majority of AYAs held that transition would solve their problems coupled with the sizable minority who became unwilling to work on their basic mental health issues before seeking treatment support the concept that the drive to transition might be used to avoid dealing with mental health issues and aversive emotions. Additional support for this hypothesis is that the sample of AYAs described in this study are predominantly female, experienced the onset of symptoms during adolescence and contained an overrepresentation of academically gifted students which bears a strong resemblance to populations of individuals diagnosed with anorexia nervosa as they are predominantly female [55–56]; typically have the onset of symptoms in adolescence [57] and are likely to have high IQ [58–59]. The risk factors, mechanisms and meanings of anorexia nervosa [53, 54, 60] may ultimately prove to be a valuable template to understand the risk factors, mechanisms, and meanings of rapid-onset gender dysphoria.

Transition as a drive to escape one’s gender/sex, emotions, or difficult realities might also be considered when the drive to transition arises after a sex or gender-related trauma or within the context of significant psychiatric symptoms and decline in ability to function. Although trauma and psychiatric disorders are not specific for the development of gender dysphoria, these experiences may leave a person in psychological pain and in search of a coping mechanism. The first coping mechanism that a vulnerable person adopts may be the result of their environment and which narratives for pain and coping are most prevalent in that environment—in some settings a gender dysphoria/drive to transition may be the dominant paradigm, in some settings a body dysphoria/drive for extreme weight loss is dominant, and in another the use of alcohol and drugs to cope with pain may be dominant. Because maladaptive

coping mechanisms do not address the root cause of distress and may cause their own negative consequences, the most likely outcome in this sample, AYAs experiencing a decline in their mental well-being after transgender-identification, is consistent with this hypothesis. There was a subset of AYAs who had improvement in their mental well-being as they desisted from their transgender-identification which would not be inconsistent with moving from a maladaptive coping mechanism to an adaptive coping mechanism.

If the above hypotheses are correct, rapid onset of gender dysphoria that is socially mediated and/or used as a maladaptive coping mechanism may be harmful to AYAs in the following ways: (1) non-treatment or delayed treatment for trauma and mental health problems that might be the root of (or at least an inherent part of) the AYAs' issues; (2) alienation of the AYAs from their parents and other crucial social support systems; (3) isolation from mainstream, non-transgender society, which may curtail educational and vocational potential; and (4) the assumption of the medical and surgical risks of transition without benefit. In addition to these indirect harms, there is also the possibility that this type of gender dysphoria, with the subsequent drive to transition, may represent a form of intentional self-harm. Promoting the affirmation of a declared gender and recommending transition (social, medical, surgical) without evaluation may add to the harm for these individuals as it can reinforce the maladaptive coping mechanism, prolong the length of time before the AYA accepts treatment for trauma or mental health issues, and interfere with the development of healthy, adaptive coping mechanisms. It is especially critical to differentiate individuals who would benefit from transition from those who would be harmed by transition before proceeding with treatment.

## Reflections

Clinicians need to be aware of the myriad of barriers that may stand in the way of making accurate diagnoses when an AYA presents with a desire to transition including: the developmental stage of adolescence; the presence of subcultures coaching AYAs to mislead their doctors; and the exclusion of parents from the evaluation. In this study, 22.3% of AYAs had been exposed to online advice about what to say to doctors to get hormones, and 17.5% to the advice that it is acceptable to lie to physicians; and the vast majority of parents were reasonably sure or positive that their child misrepresented their history to their doctor or therapist. Furthermore, although parents may be the most knowledgeable informants on matters of their own child's developmental, medical, social, behavioral, and mental health history- and quite possibly *because* they are the most knowledgeable- they are often excluded from the clinical discussion by the AYAs, themselves. An AYA telling their clinician that their parents are transphobic and abusive may indeed mean that the parents are transphobic and abusive. However, the findings of this research indicate that it is also possible that the AYA calls the parent transphobic and abusive because the parent disagrees with the child's self-diagnosis, has expressed concern for the child's future, or has requested that the child be evaluated for mental health issues before proceeding with treatment.

The conclusion of this exploratory study is that clinicians need to be very cautious before relying solely on self-report when AYAs seek social, medical or surgical transition. Adolescents and young adults are not trained medical professionals. When AYAs diagnose their own symptoms based on what they read on the internet and hear from their friends, it is quite possible for them to reach incorrect conclusions. It is the duty of the clinician, when seeing a new AYA patient seeking transition, to perform their own evaluation and differential diagnosis to determine if the patient is correct or incorrect in their self-assessment of their symptoms and their conviction that they would benefit from transition. This is not to say that the convictions of the patient should be dismissed or ignored, some may ultimately benefit from transition.

However, careful clinical exploration should not be neglected, either. The patient's history being significantly different than their parents' account of the child's history should serve as a red flag that a more thorough evaluation is needed and that as much as possible about the patient's history should be verified by other sources. The findings that the majority of clinicians described in this study did not explore trauma or mental health disorders as possible causes of gender dysphoria or request medical records in patients with atypical presentations of gender dysphoria is alarming. The reported behavior of clinicians refusing to communicate with their patients' parents, primary care physicians, and psychiatrists betrays a resistance to triangulation of evidence which puts AYAs at considerable risk.

It is possible that some teens and young adults may have requested that their discussions with the clinicians addressing gender issues be kept confidential from their parents, as is their right (except for information that would put themselves or others at harm). However, maintaining confidentiality of the patient does not prevent the clinician from listening to the medical and social history of the patient provided by the parent. Nor does it prevent a clinician from accepting information provided by the patient's primary care physicians and psychiatrists. Because adolescents may not be reliable historians and may have limited awareness and insight about their own emotions and behaviors, the inclusion of information from multiple informants is often recommended when working with or evaluating minors. One would expect that if a patient refuses the inclusion of information from parents and physicians (prior and current), that the clinician would explore this with the patient and encourage them to reconsider. At the very least, if a patient asks that all information from parents and medical sources be disregarded, it should raise the suspicion that what the patient is presenting may be less than forthcoming and the clinician should proceed with caution.

The argument to surface from this study is not that the insider perspectives of AYAs presenting with rapid-onset gender dysphoria should be set aside by clinicians, but that the insights of parents are a pre-requisite for robust triangulation of evidence and fully informed diagnosis. All parents know their growing children are not always right, particularly in the almost universally tumultuous period of adolescence. Most parents have the awareness and humility to know that even as adults they are not always right themselves. When an AYA presents with rapid-onset gender dysphoria it is incumbent upon all professionals to fully respect the young person's insider perspective but also, in the interests of safe diagnosis and avoidance of clinical harm, to have the awareness and humility themselves to engage with parental perspectives and triangulate evidence in the interest of validity and reliability.

The strengths of this study include that it is the first empirical description of a specific phenomenon that has been observed by parents and clinicians [61] and that it explores the psychosocial context of youth who have recently identified as transgender with a focus on vulnerabilities, co-morbidities, peer group interactions, and social media use. This research provides additional hypotheses to explain the dramatic rise in the number of adolescents seeking care for gender dysphoria, the recent inversion of the sex ratio for adolescents seeking care, and the new clinical presentation of natal females having their gender dysphoria symptoms observed to begin during or after puberty (in the absence of readily observable indicators of childhood gender dysphoria). Additionally, the qualitative analysis of responses about peer group dynamics provides a rich illustration of AYA intra-group and inter-group behaviors. This research also provides a glimpse into parent perceptions of clinician interactions in the evaluation and treatment of AYAs with an adolescent-onset (or young adult-onset) of gender dysphoria symptoms.

The limitations of this study include that it is a descriptive study with the purpose of a delineating previously unrecognized specific population of AYAs identifying as transgender and developing hypotheses about the origins and significance of rapid-onset gender dysphoria (ROGD). This is not a prevalence study and does not attempt to evaluate the degree to which

this presentation of a socially mediated onset of gender dysphoria or the use of the drive to transition as a maladaptive coping mechanism is widespread in the population. Gathering more data on the topics introduced is a key recommendation for further study. It is not uncommon for first, descriptive studies, especially when studying a population or phenomenon where the prevalence is unknown, to use targeted recruiting. To maximize the possibility of finding cases meeting eligibility criteria, recruitment is directed towards communities that are likely to have eligible participants. For example, in the first descriptive study about children who had been socially transitioned, the authors recruited potential subjects from gender expansive camps and gender conferences where parents who supported social transition for young children might be present and the authors did not seek out communities where parents might be less inclined to find social transition for young children appropriate [62]. In the same way, for the current study, recruitment was targeted primarily to sites where parents had described the phenomenon of a rapid onset of gender dysphoria because those might be communities where such cases could be found. The generalizability of the study must be carefully delineated based on the recruitment methods, and, like all first descriptive studies, additional studies will be needed to replicate the findings. The websites that were used for recruitment are sites which specifically offer to support parents worried about their transgender-identifying children and the population viewing these websites may be different from populations viewing websites that promote a “gender-affirming” perspective and both populations may differ from a broader general population in their attitudes about transgender-identified individuals.

It would be most accurate to characterize the differences between parents viewing the websites used for recruitment and parents viewing websites that promote a gender-affirmative perspective as parents with a difference of opinion about how best to evaluate and treat gender dysphoric children and adolescents, with the former favoring judicious use of transition and the latter favoring a liberal use of transition. However, some may argue that the parents recruited from the websites used might be more oppositional to transgender-identified individuals in general. To address this potential concern, respondents were asked specifically whether they believe that transgender people deserve the same rights and protections as others and 88.2% of respondents gave affirmative answers to the question which is consistent with the 89% affirmative response reported in a US national poll [63]. All self-reported results have the potential limitation of social desirability bias. However, comparing this self-report sample to the national self-report samples [63], the results show similar rates of support. Therefore, there is no evidence that the study sample is appreciably different in their support of the rights of transgender people than the general American population. It is also important to note that recruitment was not limited to the websites where the information about the study was first posted. Snowball sampling was also used so that any person viewing the recruitment information was encouraged to share the information with any person or community where they thought there could be potentially eligible participants, thus substantially widening the reach of potential respondents. In follow up studies on this topic, an even wider variety of recruitment sources should be attempted.

Another limitation of this study is that it included only parental perspective. Ideally, data would be obtained from both the parent and the child and the absence of either perspective paints an incomplete account of events. Input from the youth would have yielded additional information. Further research that includes data collection from both parent and child is required to fully understand this condition. However, because this research has been produced in a climate where the input from parents is often neglected in the evaluation and treatment of gender dysphoric AYAs, this research supplies a valuable, previously missing piece to the jigsaw puzzle. If Hypothesis 2 is correct that rapid-onset gender dysphoria (ROGD) represents an ego-syntonic maladaptive coping mechanism for AYAs, data from parents are especially important because affected AYAs may be so committed to the maladaptive coping mechanism that their



ability to assess their own situation may be impaired. Furthermore, parents uniquely can provide details of their child's early development and the presence or absence of readily observable childhood indicators of gender dysphoria are especially relevant to the diagnosis. There are, however, obvious limitations to relying solely on parent report. It is possible that some of the participating parents may not have noticed symptoms of gender dysphoria before their AYA's disclosure of a transgender identity; could have been experiencing shock or grief from the disclosure; or even could have chosen to deny or obscure knowledge of long term gender dysphoria. Readers should hold this possibility in mind. Regardless, the 200 plus responses appear to have been prepared carefully and were rich in detail, suggesting they were written in good faith and that parents were attentive observers of their children's lives. Although this research adds the necessary component of parent observation to our understanding of gender dysphoric adolescents and young adults, future study in this area should include both parent and child input.

This research does not imply that no AYAs who become transgender-identified during their adolescent or young adult years had earlier symptoms nor does it imply that no AYAs would ultimately benefit from transition. Rather, it suggests that *not all* AYAs presenting at these vulnerable ages are correct in their self-assessment of the cause of their symptoms; *some* may be employing a drive to transition as a maladaptive coping mechanism; and that careful evaluation is essential to protect patients from the clinical harms of overtreatment and undertreatment. More research is needed to determine the incidence, prevalence, persistence and desistence rates, and the duration of gender dysphoria for adolescent-onset gender dysphoria in general and for rapid-onset gender dysphoria, specifically. Adolescent-onset gender dysphoria is sufficiently different from early-onset of gender dysphoria that persists or worsens at puberty and therefore, the research results from early-onset gender dysphoria should not be considered generalizable to adolescent-onset gender dysphoria. It is currently unknown whether the gender dysphorias of adolescent-onset gender dysphoria and of rapid-onset gender dysphoria are transient, temporary or likely to be long-term. Without the knowledge of whether the gender dysphoria is likely to be temporary, extreme caution should be applied before considering the use of treatments that have permanent effects such as cross-sex hormones and surgery. Research needs to be done to determine if affirming a newly declared gender identity, social transition, puberty suppression and cross-sex hormones can cause an iatrogenic persistence of gender dysphoria in individuals who would have had their gender dysphoria resolve on its own and whether these interventions prolong the duration of time that an individual feels gender dysphoric before desisting. There is also a need to discover how to diagnose these conditions, how to treat the AYAs affected, and how best to support AYAs and their families. Additionally, analyses of online content for pro-transition sites and social media should be conducted in the same way that content analysis has been performed for pro-eating disorder websites and social media content [32].

## Conclusion

Rapid-onset gender dysphoria describes a phenomenon where the development of gender dysphoria is observed to begin suddenly during or after puberty in an adolescent or young adult who would not have met criteria for gender dysphoria in childhood. ROGD appears to represent an entity that is distinct in etiology from the gender dysphoria observed in individuals who have previously been described as transgender. It is plausible that ROGD represents an ego-syntonic maladaptive coping mechanism for some AYAs and that peer group and online influences may contribute to its development. It is unknown whether the gender dysphoria of rapid-onset gender dysphoria is temporary or likely to be long-term. The elevated number of friends per friendship group who became transgender-identified, the pattern of cluster



outbreaks of transgender-identification in these friendship groups, the substantial percentage of friendship groups where the majority of the members became transgender-identified, and the peer group dynamics observed all serve to support the plausibility of social and peer contagion for ROGD. The worsening of mental well-being and parent-child relationships and behaviors that isolate teens from their parents, families, non-transgender friends and mainstream sources of information are particularly concerning. More research is needed to better understand rapid-onset gender dysphoria, its implications, and scope.

## Supporting information

### S1 Appendix. Survey instrument.

(PDF)

### S2 Appendix. COREQ Checklist.

(PDF)

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# EXHIBIT W

# Caring for Transgender and Gender Diverse Youth with Co-occurring Neurodiversity

# 10

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## Introduction

Gender is thought to be a developmental process, and for some youth, gender identity may continue to shift and develop throughout childhood and into adolescence or adulthood. Diverse aspects of social, emotional, and identity development may be influenced by the presence of autism spectrum disorder (ASD), and increasingly, the co-occurrence of gender diversity and ASD is a focus of study. While most clinicians are aware of the potential co-occurrence of several psychological symptoms in transgender and gender diverse (TGD) children and adolescents [1, 2], less is known about the seemingly higher prevalence of ASD and/or social developmental impairments in TGD children and adolescents seen in specialized gender services. A growing body of literature has attempted to characterize and quantify the presence of ASD characteristics in TGD youth. This work started in the nineties with descriptions in case reports [e.g., 3]. In 2010, the first systematic study was performed investigating diagnoses of ASD in children and adolescents referred for gender dysphoria (GD) assessment [4]. Since then, the number of publications on the co-occurrence of GD/TGD and ASD has increased every year [5]. So, what do we know now about this potential co-occurrence? For example, can GD be diagnosed in youth with ASD? Likewise, can ASD be diagnosed in TGD youth? Also, what should every clinician working with TGD youth with (characteristics of) ASD know? This chapter describes the

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current state of the literature regarding this co-occurrence and addresses important clinical aspects with regard to assessment and gender affirmative treatment.

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## What Is Autism Spectrum Disorder?

The two main characteristics of ASD are (i) persistent impairments in social communication and interaction (criterion A) and (ii) restricted, repetitive patterns of behavior, interests, or activities (criterion B) [6]. The umbrella term ASD encompasses conditions that were previously referred to in the DSM-IV-TR as autistic disorder, Asperger's syndrome, pervasive developmental disorder not otherwise specified (PDD-NOS), and childhood disintegrative disorder [7]. This creates some challenges in comparing literature over time and similarly reflects a changing and growing lexicon as well as growing body of evidence across the ASD frameworks, also visible in TGD data and frameworks.

Characteristics of ASD usually manifest from early infancy onward [6]. ASD is heterogeneous with respect to clinical presentation and severity [8]. The extent to which characteristics manifest depends on the severity of the ASD characteristics as well as on the developmental level and chronologic age [6]. Difficulties in establishing, maintaining, and understanding social relations in youth with ASD vary from a lack of social interaction and play to difficulty adjusting one's social behavior to different social settings (criterion A). Individuals with ASD might also struggle to share thoughts and feelings with others, to use nonverbal communication, such as eye contact or gesturing, and might find it difficult to respond to social situations or find these situations overwhelming. An example of the B criterion of repetitive behaviors typical for ASD could be a tendency to order toys instead of playing with them, or simple motor stereotyped behaviors such as hand flapping, rocking, or spinning [6]. Children and adolescents with ASD might also show a tendency to sameness, as can be apparent from a resistance to change and rigid patterns of thinking (e.g., getting upset by a small change in routines). The limited and fixed interests seen in ASD are often unusual in focus and intensity [6], for example, an intense interest in trains. Sometimes, these interests might be correlated with being oversensitive or under-sensitive to sensory input or with an unusual interest in the sensory aspect of the environment (e.g., the urge to touch certain fabrics, dislike of specific food textures, or fascinations with shiny objects) [6].

The prevalence of ASD in the general population has recently been estimated around 1%, with a prevalence rate that is two to three times higher in males assigned at birth [8]. The exact cause of ASD is unknown. It has been suggested that ASD has a multifactorial origin, resulting from genetic and nongenetic risk factors (and their interaction) that might interfere with typical neurodevelopment [9]. ASD is often described as a neurodevelopmental condition. A more non-pathologizing approach is to view ASD as a neurodiverse condition resulting from developmental variation or as neurodiversity [10], instead of a disorder per se.

## Co-occurrence

A growing body of literature suggests that neurodiversity and GD/TGD intersect more frequently than might be anticipated by chance. Existing literature has for the most part framed this as a categorical question, attempting to quantify rates of co-occurrence of GD and ASD. Studies have differed in the methods used (both qualitative and quantitative), the samples investigated (TGD individuals and individuals with ASD, respectively), and the use of control groups. The literature with regard to the co-occurrence of GD and ASD in children and adolescents was first described in several case reports [e.g., 3, 11]. The first quantitative study was a Dutch study that examined ASD in children and adolescents consecutively referred to a gender clinic by formally assessing an ASD diagnosis, using the Diagnostic Interview for Social and Communication Disorder [12]. An ASD incidence of 7.8% was found ( $n = 16$  meeting the full criteria of ASD out of a total of  $N = 204$ ) [4]. Other quantitative studies investigated the characteristics of ASD instead of ASD diagnoses in TGD children and adolescents [13–19]. These studies included sample sizes ranging from 25 to 490 TGD children and adolescents. Using different measures, such as the Social Responsiveness Scale [15, 17] or the Asperger Syndrome Diagnostic Scale [18], while using neurotypical [e.g., 13] or ASD reference groups [19], all studies that investigated clinical range ASD percentages found increased percentages of individuals that met the cut-off for a potential ASD diagnosis ranging from 14.5% to 68%. It should be noted, however, that none of these studies used a clinical control group, and therefore, general conclusions about these studies should be made carefully [20].

Conversely, one study investigated GD diagnoses in children with ASD [21]. This study found that children with ASD were over four times as likely to be diagnosed with GD, compared to children from the general population. In addition, four studies investigated gender variance (GV), defined as the wish to be of the other gender, in samples of children and adolescents diagnosed with ASD [22–25]. They found elevated levels of GV compared to the general population, with percentages ranging from 4% to 6.5%. One study also found increased levels of GV in individuals with attention-deficit/hyperactivity disorder [24], and therefore, any conclusions about the specificity of these findings should be made with caution. One recent study investigated TGD and ASD in a community-based general population sample of children and found that increased ASD characteristics were associated with increased TGD characteristics [26].

Although the literature strongly points out a more frequent intersection of TGD and neurodiversity, some additional conceptualizations are relevant. Diagnosing ASD properly can be challenging, even more so in clinic-referred youth. In general, more research with validated measures is necessary to investigate the co-occurring prevalence rates. Also, the social cognitive challenges that have been found in TGD youth might represent a distinct phenomenon from ASD; TGD individuals might score higher on social cognitive measures due to a high prevalence of minority stress and poor peer relations, instead of reflecting an ASD diagnosis [20].

## How Could the Possible Co-occurrence of GD/TGD and ASD Be Explained?

In the literature, several ideas have been forwarded to make sense of the possible co-occurrence of GD/TGD and ASD. These can be subdivided into biological, psychological, and social mechanisms or a combination of those, as suggested by van der Miesen et al. [27] and will be discussed below.

### Biological Factors

It may be hypothesized that the intersection between GD/TGD and ASD is related to shared, brain-based factors. In ASD research [28], as well as research related to the potential GD/TGD–ASD co-occurrence, one hypothesis is based on the extreme male brain (EMB) theory [29]. This theory posits that, on average, neurotypical males have a stronger drive to systemize than empathize, while neurotypical females have a stronger drive to empathize than systemize. Empathizing is the drive to understand and respond properly to another person's thoughts and emotions, while systemizing is the drive to analyze, understand, or construct systems [29]. According to the EMB theory, the brain type – with regard to these cognitive profiles – of individuals with ASD has shifted toward an extreme male type, with on average more systemizing than empathizing [29]. Increased prenatal testosterone exposure has been suggested as one of the contributing factors underlying this shift and might influence the development of the brain in the male or female direction [30]. Furthermore, the EMB theory has been suggested to be involved in the GD–ASD co-occurrence [31], as increased intrauterine testosterone exposure could lead to both increase in autistic characteristics or ASD, and also GD, especially in assigned females at birth. While some studies indeed partly support the EMB theory by indirect evidence, most other studies do not support the EMB theory as an explanation [e.g., 19]. In addition, the EMB theory would only explain why assigned females at birth with ASD might have more co-occurring TGD/GD, and therefore, more research is needed to see if and how the EMB theory might be an underlying factor.

### Psychological Factors

For clinicians assessing children or adolescents with ASD who exhibit gender diverse behavior (e.g., cross-dressing), it is important to consider whether this behavior might reflect the sometimes limited, fixed, and intense or focused interests, which are one of the B criteria for ASD [6]. Correspondingly, authors of several case reports have suggested that TGD in persons with ASD might originate from ASD-related preoccupations or fixations [3, 11, 32]. The first author who suggested this hypothesis described two boys with gender diverse behavior that was thought to be the result of a tendency to unusual objects [33]. In line with this hypothesis, one study investigated obsessions and compulsions in children referred for GD and found that both

obsessions and compulsions were elevated compared to nonreferred individuals [16]. In the children assigned male at birth referred for GD, themes in obsessions and compulsions were significantly more gender-related compared to their male siblings. In contrast, no differences were found among those assigned female at birth. Another study investigating different subdomains of the ASD spectrum (e.g., social problems, orientation problems, stereotyped behavior, and resistance to change) in children and adolescents referred for GD found elevations on all subdomains of the ASD spectrum in both assigned boys and girls at birth, respectively [19]. These findings imply that factors contributing to the potential co-occurrence of GD–ASD might not be specific to obsessional interests in individuals with ASD as previously suggested, but rather be related to more than one subdomain of ASD. Thus, it remains unclear whether obsessional interests in cross-gender themes occur in the context of ASD or are in fact related to gender identity development [16, 20]. These interests might be a way of communicating their gender identity, especially when confronted with resistance from, for example, the family, or stem from minority stress or stigma, instead of ASD-related characteristics [15, 16]. TGD youth might, therefore, also score higher on ASD measures in general [20]. Further, other subdomains of ASD, such as hyper- or hyporesponsiveness and developmental rigidity, have been suggested [4] to contribute to TGD in individuals with ASD, but more research is needed to see whether this can be supported by empirical evidence [27].

## Social Factors

Children and adolescents with ASD might be less aware of stereotypical societal gender norms and, therefore, be less hampered to express TGD, allowing them to follow their own creative gender path [24, 34]. Differences in social learning and this lack of awareness may lead to a less concrete, socially determined concept of being a binary “gendered” individual. The experiences of individuals with ASD, with regard to gender, might be very insightful in deconstructing society’s binary view of gender [34]. One study in adults has investigated different ASD characteristics and found support for the hypothesis that individuals with ASD might be more resistant to social gender conditioning [35].

Children with ASD might find it difficult to form relationships with peers and to establish and maintain friendships [6]. Some reasons for these social difficulties include having a lack of shared interests and being less aware of the feelings and needs of others. Being ostracized or bullied might make it extra difficult to fit in with their own peer group. As a result, it has been hypothesized that children might develop a dislike of their own gender and develop feelings of belonging to the other gender [4, 11]. This phenomenon might even be reinforced if children feel that they are more tolerated or accepted by members of the other gender. For example, an assigned boy at birth who is not good at soccer, and therefore is bullied by other assigned boys at birth but is readily accepted by a group of assigned girls at birth, might develop a dislike toward being a boy and a greater sense of belonging to the group of girls. Likewise, an assigned girl at birth who does not understand the

unwritten social rules that apply to a group of assigned girls at birth and shares certain interests or skills with assigned boys at birth (e.g., playing with dinosaurs) might identify more with a group of boys. One study in adults with ASD investigated social identification and found lower social identification with gender groups and less positive feelings (self-esteem) about gender groups compared to neurotypical individuals. In addition, TGD adults with ASD reported lower gender identification and self-esteem than non-TGD individuals with ASD [36]. However, this hypothesis has not been directly investigated with regard to gender identity development and remains, therefore, speculative.

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## Assessment and Treatment

Children and adolescents with ASD or ASD characteristics might present gender-related concerns to health professionals in different settings, for example, to their general practitioner, pediatrician, or mental health specialist. Questions might arise regarding the implications that co-occurring ASD might have on assessment and treatment of TGD children and adolescents. The following section addresses clinical aspects regarding assessment and treatment of TGD youth and co-occurring ASD together with a vignette example. To date, only initial clinical guidelines based on expert consensus for the care of TGD adolescents with ASD were published [37].

### Assessment

While co-occurring ASD might come with challenges in assessment, there is clinical consensus that TGD and ASD can co-occur independently and that an ASD diagnosis should not be an exclusion criterion for a GD diagnosis in children and adolescents nor for gender-affirming treatment in adolescents [37]. It is recommended to screen TGD children and adolescents for ASD and to refer for ASD diagnostics if indicated. Likewise, it is also advisable to screen youth with ASD for gender-related questions [37]. Individuals with (characteristics of) ASD who seek help for feelings of TGD could best be assessed by professionals with both expertise in TGD and ASD or by those with TGD expertise in close collaboration with ASD experts [37].

The role of the mental health provider in general may include assessment for GD/TGD, including affirmative and open exploration of the gender identity, assessment for/treatment of coexisting mental health conditions, to educate and advocate, to provide information on peer support, and to inform about/refer for gender affirmative medical interventions [38].

What ASD-specific characteristics should clinicians take into consideration during the diagnostic process? Youth with ASD who seek help for gender-related concerns might not always present as their experienced gender or find it difficult to socially transition due to social anxiety and impaired executive functioning (e.g., planning, organizing, and abstract thinking). Also, it might be more difficult to present socially in the experienced gender role before any gender affirmative treatment has taken place

[37]. For clinicians and parents, such a presentation could give rise to second thoughts about the credibility of their experience. Nonetheless, many of these youth might have persistent feelings of GD and should not be denied access to the assessment of GD. Instead, these individuals should be referred to professionals who might help them explore their gender identity and goals in a safe and supportive setting that incorporates appropriate integration of any ASD impact on executing an affirmation plan.

Assessment could additionally be complicated due to difficulties in communication and expressing/exploring gender-related feelings [37]. Individuals with ASD might be less aware of how they feel about their body, and identity in general, which could make it difficult to discuss feelings with regard to gender identity. Also, because of a tendency to use “black-and-white” thinking rather than “gray,” individuals with ASD might find it difficult during assessment to explore gender from a continuous perspective, instead of a binary concept [37]. Additionally, understanding of the long-term impacts of treatment might be difficult for youth with ASD if they have limited ability to envision the future.

When assessing youth with ASD for GD, it is therefore advisable to have information on their strengths and challenges (e.g., cognitive functioning, communication abilities, executive functioning) and to take ASD-related features into account by, for example, adjusting language to their cognitive level or making use of visual supports. Treatment for specific ASD-related challenges or needs, such as problems with emotion recognition or social communication problems, can be advised, both prior (during the diagnostic phase) and parallel to gender affirmative treatment [37].

#### **Vignette: Sam**

Sam, a 14-year-old assigned male at birth, was diagnosed with ASD at age 8. In early childhood, Sam’s development differed from peers in several areas. While growing up, Sam had several fixations, among others for dinosaurs, later for aliens and elves. Sam had a different way of interacting with peers, misunderstanding the intentions of others, and feeling left out and bullied. Sam also had a friendship with Ellen, a same aged assigned girl at birth living next door. They liked to play together with dolls and dress up as princesses. Sam never talked about gender identity questions till age 12. At that age, Sam mentioned the strong wish to be like Ellen. When presenting at the gender clinic, Sam could at first only describe what Ellen had that Sam also wished for, like having clothes with glitters and having more friendships with girls. Sam also told the clinician that Sam likes her name because it could both be a boy and girl name. During the assessment of GD, it took Sam several months to disentangle their own feelings and thoughts from the picture Sam had made of Ellen. Sam went to a therapist experienced in ASD to enable her to give words to her feelings. During these sessions, the despair became apparent that Sam felt because of the bodily changes caused by puberty. Sam’s parents were supportive, adding examples of gender diverse behavior from early infancy on, and giving room to Sam in discovering her own identity.



It can sometimes be challenging to disentangle GD/TGD from ASD-related characteristics. Clinicians and/or caregivers might be worried that TGD feelings might stem from ASD-related characteristics such as fixations/obsessions, special interests, or a need for certain sensory input. It is to be advised to take an individual approach, with sometimes an extended assessment period [27, 37].

Youth with ASD might report experiences of TGD since elementary school [39]. However, sometimes children with ASD might be devoid of any self-reference to gender when they are younger and might be less aware of social gender norms. They might not think about gender at all when they are little, becoming aware of gender only in late childhood or adolescence, for example, when secondary sex characteristics develop [34, 35]. Involvement of family or caregivers is important because a history from parents or caregivers can provide valuable information of gender identity development in (early) childhood. Moreover, family support can play a very important role in psychological health and well-being [38].

Also, in some studies, an elevation of emotional and behavior problems, especially affective, anxiety, and somatic problems, has been found in individuals with ASD and co-occurring TGD, compared to individuals with ASD alone [25]. Clinicians should, thus, be alert of these and other co-occurring conditions during assessment and incorporate these in the treatment plan or refer individuals to specific services.

### **Nonmedical Interventions: A Stepwise Approach, Psychoeducation, and Gender Exploration**

There is often no clear distinction between assessment and treatment of GD in youth with ASD, and assessment and treatment might partly overlap [37]. ASD-related problems in future thinking might lead to difficulties in envisaging how something in the future will be or feel. Steps in social transition should be evaluated in a stepwise approach, with regard to GD-related distress and general well-being [37]. This careful evaluation of the stepwise approach often continues during gender affirmative treatment, such as hormone treatment.

#### **Vignette: Sam (continued)**

The assessment of GD was helped by the parallel treatment with the ASD therapist. Sam was able to express her feelings by, for example, describing difficult situations in a diary, making a painting of herself and formulating steps necessary to become more happy with herself. Sam discovered a more expansive way of understanding her gender diverse thoughts, feelings, and experiences, by separating her gender identity, gender expression, gender assigned at birth, and physical or emotional attraction toward others. One of the more difficult subjects was Sam's wish to be more socially accepted in the group of girls at school. Although she became more at ease with herself, she still experienced challenges in social interactions. It took Sam much effort to understand and accept that not everything would improve after transitioning.

Extended psychoeducation for neurodiverse youth, as well as for parents/caregivers, is an important part of supporting youth and their parents to help develop a broad range of possible gender outcomes and increase flexibility in thinking about gender, self-awareness, and social insight [37, 39]. During consultations with youth, it is often helpful to explore gender as a continuum instead of a binary, to provide alternative gender outcomes (such as gender fluid, a-gender), and to inform them about the options of embodying various aspects of another gender without having a full medical transition.

Youth with ASD should be encouraged to explore their gender identity, various options within the gender spectrum, and gender role/expression in their own pace, before possible irreversible medical treatment interventions. As youth with ASD might be inclined to “all or nothing” thinking, it can be challenging to take a gradual approach in exploring gender-affirming steps [37].

Incorporating aspects of the experienced gender, before medical interventions have started or completed, can be confusing or provoke anxiety. Also, exploration beyond what is familiar or what feels safe can provoke anxiety. When youth with ASD find it complex to initiate or complete a social transition due to, for example, executive functioning problems, rigid thinking, or anxiety, caregivers should be involved to facilitate gender exploration and to support or give guidance regarding any difficulties. Such difficulties can vary from problems with coming out to using makeup or finding an own and satisfactory clothing style. Also, it can be helpful to offer a certain structure in themes to be explored, for example, clothing, hairstyle, and hobbies, and each step should be evaluated carefully.

During this stepwise approach, it is important to monitor the process, and therefore, appointment compliance is important. As youth with ASD find it sometimes difficult to come to sessions, involvement of caregivers and support with planning can be helpful [37].

## Medical Treatment

### Vignette: Sam (continued)

After a period of assessment, the distress caused by the potential virilization of her body became very apparent (e.g., panic attacks because of the feeling of having facial hair, avoiding the confrontation with her body by refusing to take a shower). A treatment with puberty blockers was started as a first step to release this distress and to help Sam take the time to further discover her own unique identity. A big step was coming-out at school. Sam had first planned to transition over the summer holiday, even wanting to change school in order to avoid the confrontation with the in-between phase. Finally, with the help of her teacher, she accepted to change her plans and be open about her feelings in her own class. Much to her surprise, her peers were accepting Sam's transition. At age 16, Sam started gender-affirming hormones, already feeling a lot more at ease with herself.

TGD adolescents with ASD have undergone gender affirmative medical treatment [4]. It has been suggested that gonadotropin-releasing hormone (GnRH) analogues (puberty blockers) to suppress puberty development and gender-affirming cross-sex hormone (CSH) therapy in adolescents with GD are associated with alleviation of GD and improvement of mental health [40, 41]. Long-term follow-up studies in TGD adolescents with ASD on either the use of GnRH analogues and CSH are lacking, and it is, therefore, until now unsure what the outcomes of gender affirmative treatment are in individuals with ASD. Because of possible difficulties with future thinking, when it comes to medical treatment to relieve GD, prudence should be taken regarding irreversible effects of medical treatment and regarding having realistic expectations for treatment. To be able to consent for treatment, benefits and risks of treatment should be discussed in a way taking the adolescents' thinking style into account [37].

The literature on gender-affirming surgery in adolescents is scarce and mainly comprises gender-affirming bilateral mastectomy [42]. Several studies have shown benefits of mastectomy in adolescents [42], yet no research has been done in adolescents with co-occurring ASD. Long-term follow-up studies are needed to see whether individuals with ASD will equally benefit from gender-affirming surgery as neurotypical individuals.

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## Conclusion

A growing body of literature suggests that neurodiversity and GD/TGD intersect more frequently than might be anticipated by chance. Underlying biological, psychological, and social hypotheses for this potential co-occurrence have been proposed, but empirical evidence for any of these hypotheses is lacking. It has also been suggested that due to minority stress in TGD individuals, they might show characteristics that resemble ASD but are a result of GD/TGD. Further research is needed to investigate if and why GD/TGD and ASD co-occur more frequently.

The experience and expression of gender may be different depending on whether someone is neurodiverse or not. With regard to assessment and treatment, there is clinical consensus that GD and ASD can co-occur independently. Individuals with ASD who seek help for their feelings of GD might come with specific challenges during assessment and treatment. However, ASD should not be an exclusion criterion, and therefore, these individuals should have access to gender affirmative treatment. Future research is needed on the sometimes clinically challenging co-occurrence of GD/TGD and ASD, for example, on the development of specific assessment tools and on long-term follow-up of treatment.

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# EXHIBIT X



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April 28 ·

**Board Meeting Summary – April 25, 2022**

Monday evening's board meeting was long, with nearly four hours of public comment. Before I get to policy let me summarize the rest of the meeting.

As president I swore in our interim board treasurer, Cortnee Hemesath, and secretary, Gayla Burgess due to the departure of CFO JT Anderson.

The board recognized our 2022 LIONS and volunteer award recipients. The official awards ceremony is May 4 at 5 pm at the LRC.

I read a proclamation announcing May 2-6 as Teacher Appreciation Week and Superintendent Bisgard read a proclamation announcing the month of May 2022 as School Board Appreciation Month. Both align with state and national recognitions.

Board members shared thoughts on the recent visit to the Aquatic Center. The swimming curriculum is unique to Linn-Mar and equips our students with an important life skill. It's also a lot of fun.

Not much new news through the latest city council meeting – further approval of the construction to take place at Taube Park and the installation of a roundabout at Alburnett Road and Echo Hill Road.

No legislative update other than to say session is still stalled as the two chambers work to find compromise.

The board passed the resolution for the use of SAVE Revenue to be used on the upcoming tennis courts project. The board also passed final payments for projects, approved setting a public hearing for the 2022 amended certified budget and passed board value statements. Open enrollment requests and the consent agenda were also approved.

Back to the bulk of our meeting – 76 community members signed up to speak, leading to nearly four hours of public comment. Nearly all comments pertained to policy 504.13 and 504.13-R, some in favor and some against.

Following public comment, the board heard from the district legal counsel Ahlers & Cooney, who outlined the anti-discrimination laws which include gender identity at both the federal and state level, the guidance issued from the Office of Civil Rights at both the federal and state level on how to comply with the laws with regards to gender identity and the court rulings that have further determined how the laws are to be followed. It was also clarified that gender identity was added to the Iowa Civil Rights Code in 2007 and Title IX guidance at the federal level was first released in 2016. Iowa released similar guidance in 2017 and those procedures have been followed in public schools since that time.

As stated in a previous post for the last board meeting – these policies do not change procedure, they simply put into policy for easy reference how these laws are followed within the district.

The board passed the second reading of all the policies presented, including 504.13 and 504.13-R following the question and discussion segment of the meeting with our legal representation.

66

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or

# EXHIBIT Y

# Gender transitions at school spur debate over when, or if, parents are told

By Donna St. George

July 18, 2022 at 6:00 a.m. EDT

Alexzander Baetsen came out at school to an English teacher. The revelation was made in a short letter on a piece of lined notebook paper, handed to the teacher as the eighth-grader left class one day. The teen explained that while they were assigned female at birth, they identified as transgender and gender fluid.

Baetsen remembers the teacher's reaction: "Just come to me at the beginning of class and let me know what name and pronouns you want to go by for that day." It was better than Baetsen expected — not only acceptance but someone who was able to "wrap their head around my situation."

Still, it was six more months before the teenager told their parents. "You fear the worst," said Baetsen, now 20.

Surprising many families nationally, public schools often don't inform parents when students socially transition. They see confidentiality as a priority — operating under gender-identity guidelines that put student privacy and safety above family consent or knowledge.

School leaders say there are good reasons for the approach — mainly, to avoid outing kids who could be in harm's way at home or aren't ready to tell their parents. They worry about family rejection and students' mental health. Transgender students are at a greater risk of suicide and substance use, according to the Centers for Disease Control and Prevention. They are twice as likely to experience depressive symptoms. They, along with other LGBTQ youths, constitute a larger share of the foster-care population and are at higher risk for homelessness.

At least 18 states, along with D.C. and Puerto Rico, have issued school guidance in some form focused on inclusion and treatment of transgender and gender nonconforming students, said Melanie Willingham-Jaggers, executive director of GLSEN, which advocates for LGBTQ issues in schools. "Not all state guidance is as strong as it should be," she said.

But where stronger rules are in place, school leaders have come under increasing fire for their perceived secrecy. Critics argue they have no business cutting families out of a critical part of children's lives. The practice has prompted lawsuits in Massachusetts, Florida, Wisconsin, Kansas, Virginia and Maryland. Many of the legal actions point to an especially controversial practice: requesting teachers use new trans names in class but revert to the original "dead" names when talking with parents.

"These policies mandate automatic affirmation for children of any age, without confirming that parents are aware," Tyson Langhofer, senior counsel at the Alliance Defending Freedom (ADF), a conservative Christian legal nonprofit that has filed suit in a string of cases. In many places, schools won't tell parents unless students say it's okay, he pointed out. "These policies are starting with the assumption that the parents are the problem," he said.

Yet schools see what happens as more of a process — supporting students while they ready themselves to come out to their families, said Asaf Orr, senior staff attorney at the National Center for Lesbian Rights and director of its Transgender Youth Project. Research shows the single-largest factor in the well-being and health of transgender students is the level of support or rejection from their families, he said.

"This is the high-wire act of gender-inclusive practices," Orr said.

## **'I was the last to find out'**

Experts say the number of gender-questioning youths is on the rise, partly because there is far less social stigma. Nearly 16 percent of people slightly older than today's teenagers — those in Gen Z — identify more broadly as LGBT, according to a Gallup poll, a striking increase from the generations before it.

In schools, gender identity is often expressed through a change of names and pronouns. Some parents already know about their child's transition by then. But others don't, and may not be told in the short term if a student feels they would not be supportive.

The approach angers many parents.

Parents across many political beliefs argue that they can't be supportive if no one tells them that their child came out. They also point out that withholding the information seems wrong, when schools routinely send notes home to parents about lesser matters — playground tussles, missing homework, social events.

A California mother who lives in a suburb outside the Bay Area went two years without knowing her sixth grader had transitioned at school. "Basically, I was the last one to find out," said the woman, who spoke on the condition of anonymity to protect her child's privacy. "They were all saving my kid from me." The mother only made the discovery, she said, when she took her child to the hospital one day and a doctor told her. She was stunned.

Erica Anderson, a clinical psychologist who is a transgender woman and former president of the U.S. Professional Association for Transgender Health, said leaving parents in the dark is not the answer. "If there are issues between parents and children, they need to be addressed," she said. "It's not like kicking a can down the road. It only postpones, in my opinion, and aggravates any conflict that may exist."

In Maryland, a sixth-grade student told his parents a couple of months after starting to transition at school. His father said one of his reactions was: “Oh my God, how did I not know this was happening with my own child?” But he also thought of his growing up. If he were a trans teen, he said, “I can’t imagine I would have wanted to come out to my parents first.” One thing the father never expected was the school to tell him: “Your kid is the only one who should do that,” he said.

Ideally, Joel Baum of the nonprofit Gender Spectrum said, families of gender questioning students would be able to say: “Even if we don’t quite understand, we see you. We get you. Let’s talk about it.”

Students including Alex Prince, 16, of Virginia Beach, who identifies as nonbinary, said those who are coming out best understand what they could be up against at home. “I have many friends who have parents that would kick them out if they found out they were queer, or beat them so badly they could wind up dead,” he said. “That’s not an exaggeration — that’s the environment that LGBTQ+ teens exist in.”

Nationally, LGBTQ students have been under attack, with a cascade of anti-transgender legislation under consideration around the country — more than 300 bills this year — as conservatives push to exclude transgender athletes from school sports, limit lessons that teachers can give about gender identity, remove LGBTQ-affirming books from school libraries and criminalize efforts to provide hormone therapy and puberty blockers to minors. Political campaigns and cable TV have driven up the tension, with Republican candidates attacking transgender rights and Fox host Laura Ingraham referring to public schools as virtual “grooming centers for gender-identity radicals.”

The Biden administration has pushed back, proposing changes in Title IX that are expected to increase protections for transgender students. On Friday, a federal judge temporarily blocked enforcement of earlier guidance issued by the administration to protect LGBTQ people in schools.

In central Florida, Jaime Jara’s youngest is a trans girl. She kept her birth name, and teachers at her elementary school welcomed her. By first grade, everyone used her chosen pronouns: she/her. Now 10 years old, she has close friends and feels like she belongs. She loves dancing and TikTok.

“She’s a regular 10-year-old kid,” Jara said.

Jara knows that her daughter is fortunate to find a world so accepting — and certainly better-off than some of Jara’s students. About 2 percent of high school students identify as transgender, according to the CDC.

A history teacher, Jara has brightened her high school classroom with rainbow-colored accents and a “safe space” sign on the door, and she hears sometimes from transgender students who struggle at home, she said. “If your own parent is not accepting, how heartbreaking is that?” she said.

The political climate has reinforced feelings of rejection, she said.

Since 2006, more than 25 states have adopted laws or regulations that affirmed LGBTQ rights — on bullying, school facilities, suicide prevention, health programs, sex education — according to the research organization Child Trends, but 2021 marked a turning point. “I really think that the tide turned from a more affirming and supportive type of policy environment to one that is more exclusionary,” said Deborah Temkin, who led the research.

In Florida, the “Parental Rights in Education” bill, which critics call the “Don’t Say Gay” law, has fired up supporters and critics. The measure, which took effect July 1, restricts instruction on LGBTQ issues at schools and does not allow school employees to keep from parents any issues that affect their child’s mental, emotional or physical health.

As Gov. Ron DeSantis (R) signed the bill, he pointed to a case in Leon County, where January Littlejohn and her husband are suing the public school system for what they alleged was concealing information about their 13-year-old's gender-identity transition, violating their rights as parents and harming their relationship with the teen. A spokesman for the school system did not return calls, but the superintendent has said that the situation was misrepresented and that the district was following instructions from Littlejohn.

More recently, the school board in Leon County voted in late June to turn a spotlight on transgender students — mandating that all families be informed when “a student who is open about their gender identity” is part of a PE class or on an overnight trip, in case other parents want to remove their children.

In Virginia's Shenandoah Valley, public schools in the college town of Harrisonburg are among the most recent legal battle ground. School officials there keep student gender transitions confidential and say that students' gender identities should be affirmed, according to a staff presentation last October. “The ultimate goal is to help a student safely come out to their parents with support from trusted adults,” the presentation said.

But a lawsuit brought in June by six parents and teachers — all said to be practicing Christians who believe “each of us is born with a fixed biological sex that is a gift from God” — argues that the district's practices usurp parents' rights, violate free speech protections and force school employees to go against their religious faith. “Public schools should never hide information from or lie to parents about a child's mental health,” the complaint, filed by ADF, begins. “And schools should never compel teachers to perpetrate such a deception.”

In a publicly posted exchange of letters between ADF and the school system, Superintendent Michael Richards said he had not received complaints in line with what lawyers presented and was not inclined to support rescinding a practice “that offers support and resources to some of our most vulnerable students and their families.” The district uses “a team approach” to address student and family needs case by case, he said.

Earlier, 14 parents working with the conservative Wisconsin Institute for Law and Liberty and ADF, sued schools in Madison, Wis., over guidelines that allow students to adopt gender-affirming names and pronouns without telling parents.

## For schools, approaches vary

To support those transitioning socially at school, some school systems create a “gender support plan” that outlines how a student's situation will be handled — with details about restrooms, extracurricular activities, trusted adults and privacy.

But school systems take different approaches, and some practices evolve.

In Colorado's Jeffco School District, outside of Denver, officials honor names and pronouns that align with students' gender identities. But the 69,000-student system brings parents into the conversation as a way to support students, said spokeswoman Kimberly Eloie, pointing out there is no real privacy in place if people are using new names and pronouns in school.

In Maryland's largest school system, parent involvement is ideal but not required. “Under the guidelines, we do support the student,” said Gregory Edmundson, director of student welfare and compliance in Montgomery County, with 159,000 students.



“If they are not out to their families, then we honor and respect that,” he said. “It’s not about trying to keep secrets. It’s about us trying to keep kids safe.”

In the last three years, 350 to 400 Montgomery County students have completed gender identity support plans to change names and pronouns to match their gender identity, Edmundson said. One question asks the student to rate their parents’ support level, from a low of 1 to a high of 10.

Montgomery County is being sued, too. Lawyer Frederick W. Claybrook Jr., who is listed on the complaint with the Christian conservative National Legal Foundation and an attorney based in the county, took the school system to court in 2020 on behalf of three parents.

“Parents should be in the loop on this kind of decision,” Claybrook said. “The fact that they aren’t doesn’t even allow them to help their children get professional care, which might well be very supportive of their transitional choice. But this is a difficult decision that can have some very life-changing effects — and parents are principally in charge of helping their children through those types of situations.”

Mark Eckstein, an LGBTQ advocate and father of two in the Maryland school system, said he understands that parents would not want to be excluded. And since parent notification rests on how supportive parents are, he asks: How does that get measured? Still, he maintains that the safety of the child outweighs the need of the parent to know. But the goal, he said, is to include everyone.

“This is not us against them,” he said. “We have to all come together to support these issues because they’re not easy, they’re complicated.”

For a mother of three living outside Seattle — historically liberal in her politics — the complications began when her child was in fifth grade. One day she opened an email from a teacher and did not recognize the student’s name. At first she thought the teacher had sent it to the wrong parent.

She soon realized it was her daughter. The fifth-grader had taken on a new name and male pronouns in school. “I feel like they lied to us by omission,” the mother said, speaking on the condition of anonymity to protect her child’s privacy.

The experience led to a couple years of home-schooling, which coincided with the pandemic. She says her daughter now identifies again as a girl. The mother said she was not bothered by the child thinking through issues of sex and gender. “A lot of us tried on different identities when we were young,” she said. But being transgender could eventually lead to medical treatment, she said, and “once a kid says this, there is the automatic assumption that it has to be true.” Even more, “they are protecting children from parents without ever giving us a chance to be supportive.”

“They call us if they’re going to give our kids a Tylenol or if they have a scratch, but not with this?” she said.

Baetsen, who came out to their Maryland teacher while in eighth grade, said it is important that schools make sure not to out students. Baetsen finally told their parents in ninth grade, finding their parents were “very, very supportive,” asking questions but understanding. “You don’t know how people are going to react,” Baetsen said.